

Public Utilities

FORTNIGHTLY



September 30, 1943

THROUGH A FROZEN HELL ON TIME

By Herbert Corey

" "

Will Refinanced Co-ops Be Self-liquidating?

By Ernest R. Abrams

" "

Nation-wide Conservation and the Utilities

By Charles A. Esser

PUBLIC UTILITIES REPORTS, INC.
PUBLISHERS

Reasonable Vanity



"YOU GOTTA EXCUSE NICK'S VANITY . . . HE NEVER HAD
ANY EYEBROWS BEFORE WE GOT TH' NEW EQUIPMENT!"

The lasting, attractive finish not only reflects Nick's countenance but also is an outward indication of fine workmanship throughout I-T-E switchgear.

I-T-E AIR SWITCHGEAR
IMMERSED IN AIR • ENCASED IN STEEL

CIRCUIT BREAKER CO., PHILADELPHIA, PA.

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

ts
on

, PA.
ment)

ember

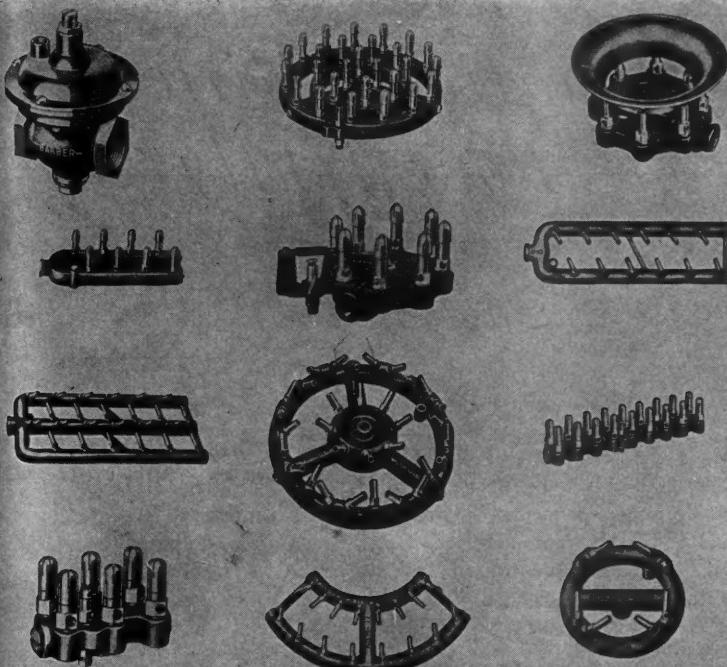
Ba

► A
Wh
our
sta
ew
nat

na
ecce
ope
rec
Wri

I
O

T



Barber Units for Every Type of Gas Appliance

At present Barber is largely engaged in filling essential war orders. Wherever possible and permitted, however, we are continuing to supply our regular trade. Two hundred leading makers of gas appliances have standardized on Barber units for their products. Shown above are just a few of scores of types of burners we produce, for equipment operated on natural, manufactured, Butane or bottled gas.

The famous Barber jets, as well as Barber principles of design, assure maximum efficiency, a point now of the very highest importance, since economy of fuel has become a matter of national concern. Let us cooperate with you in designing, laboratory testing, and supplying the correct size and type of burner for the appliance.

Write for Catalog showing Appliance Burners, Conversion Burners and Pressure Regulators.

BARBER GAS BURNER CO., 3704 Superior Avenue, Cleveland, Ohio

BARBER BURNERS

*Editor—HENRY C. SPURR
Managing Editor—FRANCIS X. WELCH
Associate Editors—ELLSWORTH NICHOLS, NEIL H. DUFFY, CHARLES A. ESSER
Financial Editor—OWEN ELY
Assistant Editors—M. C. McCARTHY, A. R. KNIGHTON, E. M. PERENICH*

Public Utilities Fortnightly



VOLUME XXXII

September 30, 1943

NUMBER 7

Contents of previous issues of PUBLIC UTILITIES FORTNIGHTLY can be found by consulting the "Industrial Arts Index" in your library.

Utilities Almanack	397
Laying a Water System	(Frontispiece) 398
Through a Frozen Hell on Time	Herbert Corey 399
Will Refinanced Co-ops Be Self-liquidating?	Ernest R. Abrams 406
Nation-wide Conservation and the Utilities	Charles A. Esser 414
Wire and Wireless Communication	427
Financial News and Comment	Owen Ely 431
What Others Think	437

Summary of NARUC Depreciation Report
A Government-controlled News Association?
The Fifth Freedom—Private Enterprise
Thawing Capital for Postwar Industry
Natural Gas *versus* Coal in Postwar Era
The National Association of Personnel Directors Expands
Is Canadian Price Control Better?

The March of Events	446
The Latest Utility Rulings	455
Public Utilities Reports	461
Titles and Index	462

Advertising Section

Pages with the Editors	6
In This Issue	10
Remarkable Remarks	12
Industrial Progress	34
Index to Advertisers	48

Q This magazine is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouth-piece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

Publication Office, CANDLER BUILDING, BALTIMORE, MD.
Executive, Editorial, and Advertising Offices, MUNSEY BUILDING, WASHINGTON, D. C.

PUBLIC UTILITIES FORTNIGHTLY, a magazine dealing with the problems of utility regulation and allied topics, including also decisions of the regulatory commissions and courts, preprinted from *Public Utilities Reports, New Series*, such Reports being supported in part by those conducting public utility service, manufacturers, bankers, accountants, and other users. Entered as second-class matter April 29, 1915, under the Act of March 3, 1879. Entered at the Post Office at Baltimore, Md., Dec. 31, 1936; copyrighted, 1943, by Public Utilities Reports, Inc. Printed in U. S. A.

PRICE, 75 CENTS A COPY

ANNUAL SUBSCRIPTION, \$15.00

SEPT. 30, 1943

*Removes
Only
the Burr*

New
RIDGID
Extra-Long-
Tapered
Reamer



EXTRA LONG taper design of this new **RIDGID** reamer makes it unusually easy for you to cut burr cleanly from the inside of pipe or conduit—feather-light pressure gives you a perfect job without reducing wall of threading end or flaring or splitting pipe. It comes complete with ratchet handle; or LonGrip reamer unit may be purchased separately for use in **RIDGID** No. 00R small ratchet die handle into which it locks as easily and securely as a die head. Capacity is $\frac{1}{8}$ " to 2". A typically better **RIDGID** tool. For quick easy reaming without risk of damaging the pipe, ask your Supply House today for this new extra-long-taper LonGrip Reamer.

THE RIDGE TOOL COMPANY, ELYRIA, OHIO, U.S.A.

RIDGID

★ PIPE TOOLS ★

Fast-Working Tools for War,
and the Busy Peace that's Coming



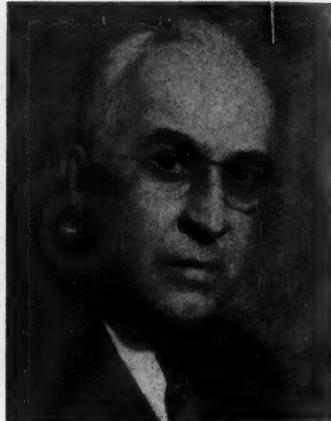


Pages with the Editors

ALTHOUGH the people of the United Nations generally had expected that Italy would sooner or later crumble ever since Mussolini fell from power, the abrupt announcement of the surrender of the Badoglio government on September 8th apparently surprised not only the Germans but many of our own folks as well. Maybe we are not quite clear just how to act when we win a victory. The Office of War Information, which did not seem to be in on the advance dope (the armistice had actually been signed September 3rd), stalled around for a while like a radio announcer trying to kill time on the air.

MANY of our leading officials, Congressmen, and so forth, when confronted with the inevitable questions from the press, reacted quite lamely with such hackneyed ejaculations as "astonishingly good news," "marvelous," "good tidings indeed." Press reports tell us that a war bond rally in progress in New York city broke into cheers, as well it might. But the next day's newspaper pictures of the amount of ticker tape, confetti, etc., showered on Broadway made a sorry showing in comparison with past salutes to channel swimmers, baseball players, etc.

ONE wonders if it would be worth while



ERNEST R. ABRAMS

Will the electric co-op movement ever stand on its own feet?

(SEE PAGE 406)

trying to take a page out of the book of our enemies who have such details worked out with all the precision of a ballet dancer. An enterprising Senator, for example, might have a finger-tip file of statements to be made on such occasions as the fall of Italy, the fall of Austria, the fall of Germany, the invasion of France, or the Scandinavian countries. Such a public figure would never be caught flat by any emergency. He could work in a clever pun about the Isle of Capri, or the lemon groves of Sicily, and get a cheap reputation for a wit and a scholar at the same time.



HERBERT COREY

Talk is not cheap on frozen wires through the Arctic.

(SEE PAGE 399)

SEPT. 30, 1943

ON second thought, however, maybe it is just as well that we don't have any organized cheering section or preconceived balcony speeches on our side. It was Mussolini who adapted the old grand opera *claque* technique to the stage of international politics, and now look at him. Furthermore, as President Roosevelt said, perhaps we have too much to do now to take time out for a celebration, and when the time for celebrating does come we probably won't be in a mood for it. We rather suspect that all will not agree to the second part of the President's statement and when the news of the German

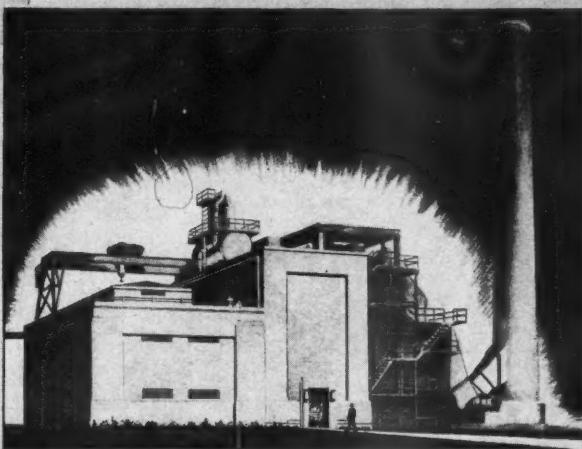
BOSTON
ST. LOU

BOILE
PULVER

This

ELECTRIC POWER

... never too late nor too little



Another power plant is dedicated!

 The wheels of industry are driven chiefly by electrical energy, which speeds production, reduces costs, multiplies manpower. The new steam electric generating station shown above will add nearly 50,000 horsepower to drive the wheels of SOUTH TEXAS INDUSTRY.

Designed in April, 1941, it was constructed with minimum use of critical materials, and it embodies the latest developments which make for high efficiency.

 Today's electric power demands were foreseen long before the United States entered the war.

but the new power plant, which today is meeting those demands, is dedicated to help win the war for freedom—and to the more than 500 employees of the Houston Lighting & Power Company who have left their families and jobs to enter the armed forces of their country. When victory is earned, this plant will be needed for one of their numbers.

 The war industries in the area served by the Company are extremely vital to the war program. Ships, steel, magnesium, synthetic rub-

ber and petroleum are just a few products representative of South Texas' mighty contribution to ultimate decisive victory.

To provide dependable, low cost electric service to these industries and to the people of South Texas who man them is this Company's privilege and responsibility. To that end the Houston Lighting & Power Company dedicates—*and alone*—the new power plant—but its manpower, resources and experience.

HOUSTON LIGHTING & POWER COMPANY

Reprinted from the HOUSTON PRESS, July 7, 1943.

1-400,000 lbs./hr. 1000 lbs. Press. 905° F. Temperature.
RILEY STEAM GENERATING UNIT IS INSTALLED

RILEY STOKER CORPORATION

WORCESTER, MASS.

BOSTON NEW YORK PHILADELPHIA WASHINGTON, D. C. BUFFALO CLEVELAND DETROIT SEATTLE
ST. LOUIS CINCINNATI HOUSTON CHICAGO ST. PAUL KANSAS CITY LOS ANGELES ATLANTA
COMPLETE STEAM GENERATING UNITS

BOILERS - SUPERHEATERS - AIR HEATERS - ECONOMIZERS - WATER-COOLED FURNACES
PULVERIZERS - BURNERS - MECHANICAL STOKERS - STEEL-CLAD INSULATED SETTINGS

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

PAGES WITH THE EDITORS (*Continued*)

surrender comes a lot of our people are not going to be denied an opportunity to let off some steam.

Be that as it may, it is probably just as well we all got back to work the next day with clear heads and determined hearts, fully resolved to get on with the business of taking the ax out of the Axis. So far we have only been whittling at the handle.

ONE result of the fall of Italy, however, is likely to be a revision of government and industrial plans with respect to public utilities. Obviously, it would be unsafe to gamble too much margin on how much nearer the end of the war has been brought. The Federal Power Commission, for example, is going right ahead with its hearings on proposals to build a "big inch" natural gas pipe line from southwestern fields to supplement the shortage areas in the Appalachian serving the eastern seaboard. Since this could hardly be completed before the heating season of 1944-45, it is clear that the FPC (like the WPB) is not figuring that by that time there will be any letup on the general demand for coal and fuel transportation facilities. It is assuming that the pipe line will be needed in the interest of the war effort. There can be no quarrel with such caution.

through 1944 on shipbuilding, meaning steel and man power for other purposes. With some items it may even work the other way. The Allies now, for example, are called upon to supply coal to Italy, which was formerly supplied by her Axis partner, Germany. In any event, while it is difficult to see immediately just what the impact will be, it is pretty certain that there will be an impact. It inevitably will affect the utilities.

THE leading article in this issue happens to deal with one interesting phase of the war impact on operation of a utility character. It has to do with the building of the long-distance toll line paralleling the Alcan Highway through the Canadian Rockies to Alaska. It is not the longest line in the world, but it is pretty nearly the longest, and some of the problems encountered by the Signal Corps should make lively reading to the telephone men and their brethren in other utility fields. It is the product of the Washington journalist and author, HERBERT COREY.

FOllowing up our series on the REA co-op situation, we present a study of future financial problems in that category by the well-known financial writer, ERNEST R. ABRAMS, who has previously written a number of times for this magazine.

BUT it is quite possible that, within a safe margin of speculation, the estimates of demands on utilities for the years 1944 and 1945 (as well as estimates as to materials and facilities at their disposal) may be revised. With the addition of the Italian naval and commercial fleet, the shortening of communications lines, we may expect some easing up



CHARLES A. ESSER

Necessity for conserving resources has reached the public utilities.

(SEE PAGE 414)

SEPT. 30, 1943

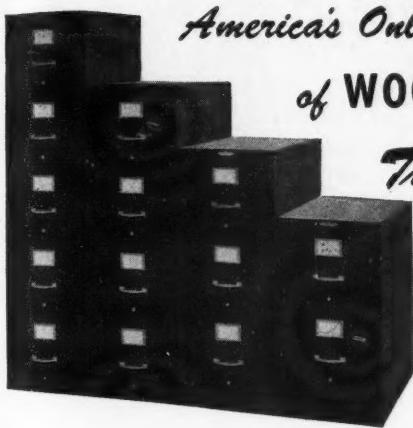
CHARLES A. ESSER, whose article on the WPB conservation program affecting public utilities begins on page 414 of this issue, is a recent addition to the editorial staff of PUBLIC UTILITIES FORTNIGHTLY. Born in St. Louis, Mr. ESSER graduated from Whitman College at Walla Walla, Washington, and engaged in newspaper work which in 1930 brought him to Salt Lake City as night editor of the Associated Press bureau. In 1941 he was appointed secretary to the Utah Public Service Commission and served in that capacity until March, 1943, when he came to Washington to accept his present post as associate editor of this publication.

AMONG the important decisions preprinted from *Public Utilities Reports* in the back of this number, may be found the following:

RETURN for an electric utility was one of the matters ruled upon by the New York commission in an investigation of electric rates, and it considered such factors as cost of money, attraction of capital, and variance in conditions; but cost of living was not considered. (See page 257.)

THE next number of this magazine will be out October 14th.

The Editors



*America's Only COMPLETE LINE
of WOOD Filing Cabinets*
The Guardsman

ENGINEERED FOR
DURABILITY...

DESIGNED FOR
VERSATILITY...

**A UNIT TO
MEET YOUR EVERY FILING NEED**

● In 1943, business offices must continue to function as efficiently as in peacetime... more efficiently, in fact, for there is today far more paper work than ever before, and far fewer people to do it.

Of course all available steel now goes to war producers... but business records must still be housed conveniently and efficiently. And only Remington Rand can furnish the "Guardsman" ... the only truly complete line of wood filing equipment.

The Guardsman line is just as superlative as any item which bears the Remington Rand label. It's built to last... and to match in operation, as it does in appearance, your "pre-war" steel files. See the "Guardsman" at your nearby Remington Rand office today... or write to us at Buffalo for a copy of the new full-color manual, "Filing Equipment in Wood." Buy "Guardsman" with confidence... use it with satisfaction!

NO PRIORITY RATING REQUIRED

3-DRAWER LETTER
5-DRAWER LEGAL
4-DRAWER LETTER
4-DRAWER LEGAL
3-DRAWER LETTER
3-DRAWER LEGAL
2-DRAWER LETTER
2-DRAWER LEGAL
3-DRAWER JUMBO
6-DRAWER 8x5 CARD FILE
TABULATING CARD FILE
9x3 SUBSTITUTE DRAWERS
6x4 SUBSTITUTE DRAWERS
8x5 and 8x8 CROSS TRAYS
MAP and PLAN UNITS
TRANSFER CASES

The Guardsman...

another distinguished contribution to your office efficiency in today's wartime economy... from

Remington Rand

In This Issue

In Feature Articles

- Through a frozen hell on time, 399.
Alcan Highway toughest job on record, 400.
Construction of carrier system, 401.
Will refinanced co-ops be self-liquidating, 406.
Status of REA, 407.
No revenues produced until systems are energized, 408.
Taxation of co-operatives, 409.
REA loans to co-operatives, 411.
Nation-wide conservation and the utilities, 414.
Necessity for conserving and eliminating waste, 415.
Industry-government co-operation in determining methods of voluntary conservation, 416.
Conservation of critical materials, 418.
Conservation of petroleum products, 421.
Conservation of electric power, 422.
Conservation of transportation, 425.
Wire and wireless communication, 427.

In Financial News

- Engineers Public Service, 431.
United Corporation to submit plan, 432.
Consumers Power estimates postwar earnings increase, 432.
Utility financing (chart), 433.
Federal Power Commission statistics, 434.
Stock and bond prices, 435.
Interim earnings reports, 436.

In What Others Think

- Summary of NARUC depreciation report, 437.
A government-controlled news association, 438.
The fifth freedom—private enterprise, 440.
Thawing capital for postwar industry, 441.
Natural gas *versus* coal in postwar era, 442.

The National Association of Personnel Directors expands, 444.
Is Canadian price control better, 445.

In The March of Events

- NARUC convention, 446.
WPB-FPC agree on gas control, 448.
Reclamation bureau split, 448.
Gas convention date changed, 448.
Government asks co-operation, 448.
Gas line vital, 448.
Bonneville power report, 449.
Asked to explain raid, 449.
Resignation approved, 449.
Strike notices withdrawn, 449.
News throughout the states, 449.

In The Latest Utility Rulings

- Rate notice to OPA void when lacking consent to intervention, 455.
FPC license required for reconstruction of power dam, 455.
Applicant for authority to construct pipe line must show financial ability, 456.
Gas company acquiring facilities of subsidiary must obtain certificate, 456.
Contract carrier not required to obtain certificate of authority to do business, 457.
Simplification plan disapproved by Federal commission, 457.
Advantages of merger, 458.
Report of investigators properly excluded by commission, 458.
Owner of leased hydroelectric plant subject to FPC jurisdiction, 459.
Private corporation cannot appeal from order directed at railroad, 459.
Miscellaneous rulings, 460.

PREPRINTS FROM PUBLIC UTILITIES REPORTS

*Various regulatory rulings by courts and commissions reported in full text,
pages 257-320, from 49 PUR(NS)*

**4 YEARS
of
SERVICE
with
-no trouble
-no maintenance**

VULCAN

SOOT BLOWERS

Last fall a check was made by Vulcan engineers on a soot-blower unit installed 4 years before in a twin furnace steam generator job at Oil City, Pa.

The engineers found that the unit had completed its 4th year of operation without one instance of servicing, repair, or maintenance having been required.

Because of the advance de-

sign of this boiler, involving new features in soot-blower design and construction, Vulcan engineers had inspected the installation regularly for many months. But the engineering was sound. No trouble of any sort developed. Operators reported perfect cleaning, reasonable cost — and VULCAN Soot Blowers were again specified on a duplicate steam generator installation!

Write for Details Today

VULCAN SOOT BLOWER CORPORATION • DU BOIS • PENNA.



VULCAN SOOT BLOWERS



Remarkable Remarks

"There never was in the world two opinions alike."

—MONTAIGNE

H. C. THUERK
Chairman, EEI Postwar Planning
Committee.

"... it is not the facts that count today—it is what people think are the facts."

PRESTON S. ARKWRIGHT
President, Georgia Power
Company.

"... our [utilities'] customers, when all is said and done, are the only real asset we have."

EDITORIAL STATEMENT
Electrical World.

"Power pools are . . . in some ways the greatest example we have in this [electric] industry of preparedness to meet most any situation."

A. LINSCHEID
President, East Central State
College.

"... in a democracy free enterprise is as essential as freedom of speech or freedom of conscience; what I am saying is not the expression of an opinion of one individual; it is the verdict of history."

EDWARD MARTIN
Governor of Pennsylvania.

"When government puts your money into business, then government takes control. Remember that government has no capital of its own. When it puts money into a partnership, it takes that money in taxes from the sweat of labor."

S. B. WILLIAMS
Editor, *Electrical World.*

"While these [OPA] interferences with the normal regulation of utilities have been very disquieting during the past year, in some ways they have been very beneficial, because in reaffirming the authority of the state the position of state regulation has been greatly strengthened over what it has been."

C. W. KELLOGG
President, Edison Electric
Institute.

"... even in the face of the power requirements of this unprecedented war, the electric utility industry this past year derived a larger proportion of its earnings from the home and store in the war year of 1942 than in the peace year of 1926. It would be difficult to imagine a more searching test of stability."

THOMAS E. DEWEY
Governor of New York.

"In the last ten years it has been the trend of the Federal government to by-pass the states and attempt to deal directly with the local communities. This trend has extended prodigiously the scope and power of the Federal government, somewhat at the expense of the local communities, greatly at the expense of the states."

THREE WAYS to get more out of your Burroughs machines

USE ALL SHORT-CUTS

Make sure operators are thoroughly familiar with and are using all of their machines' automatic features, keyboard controls and other special time-saving advantages. Write related records as one operation. Obtain statistics and figures for reports as a by-product of regular posting routines.



KEEP THEM IN GOOD CONDITION

Right now you can arrange for regular, periodic inspection, lubrication and adjustment of your Burroughs machines, to safeguard your office from emergency repairs and the delays they entail. A standard Burroughs Service Agreement provides this efficient protection at a moderate, predetermined cost. All work is guaranteed by Burroughs.



USE GOOD SUPPLIES

Your machines will produce better work if you use Burroughs carbon paper, roll paper, ribbons and other supplies. They are manufactured to the exact specifications determined by Burroughs' experience. They are economical, too, with 10% to 40% discounts for quantity purchases.



Are you taking all these steps to get the most out of your Burroughs machines today? If not, call the local Burroughs office or write Burroughs Adding Machine Co., Detroit.

Burroughs

ADDING, CALCULATING, ACCOUNTING AND STATISTICAL MACHINES
MAINTENANCE SERVICE • OFFICE MACHINE SUPPLIES

MANUFACTURING FOR WAR

The manufacture of aircraft equipment for the Army Air Forces, and the manufacture of Burroughs figuring and accounting equipment for the Army, Navy, U. S. Government and the nation's many war activities, are the vital tasks assigned to Burroughs in the Victory Program.

REMARKABLE REMARKS—(Continued)

R. B. ROBERTS, JR.
Florida Power & Light Company.

"Good will is coming our [electric industry] way today mainly because power has never been 'too little or too late.' And again, under the fearless and farsighted leadership of a few operating companies to start on, the industry, for the first time in its history, is vocal nationally, and factual to such a degree that even celestial constellations in our advertisements are precise."

W. C. MULLENDORE
Executive vice president, Southern California Edison Company, Ltd.

"We might . . . conclude from the emphasis upon plans for the vast extension of government control that the war is being fought not to preserve but to destroy the American system of individual responsibility, and to substitute therefor a system under which government is to be responsible not only for usual governmental problems but for the individual economic welfare of every citizen."

ELISHA M. FRIEDMAN
Consulting economist.

"Congress should reorganize the Federal regulation of public utilities. On what theory were the utilities placed under the SEC? Suppose in 1935 there were no ICC. Would anyone think of putting railroad regulation under the SEC? The task should be taken away from the SEC and vested in a separate Interstate Utilities Commission, corresponding to the Interstate Commerce Commission for the railroads."

ERIC A. JOHNSTON
President, U. S. Chamber of Commerce.

"There was a time, not so long ago, when we uttered the word 'capitalism' softly and apologetically, and there are still a few who search in the dictionary for euphemisms and evasions. But I believe capitalism has no need of mealy-mouthed apologetics. Despite all of its faults, all of its frailties, and all of its failures, it glows with the colors of perfection when compared with Fascism and Communism. Our system of private enterprise has lived through crises and emerged with new vitality."

EDITORIAL STATEMENT
The Wall Street Journal.

"If the political powers should confine their activities to the irreducible minimum of governmental functions they would still occupy a wide province in which only they can take conclusive action. If, on the contrary, they attempt to *make* the internal economic and social structures which, in the American tradition we are now fighting to preserve, should be the work of a people free to create their own institutions in limitless variety, they will need totalitarian status to overcome the instinctive resistance of the country to centralized governmental management of their means of living. If anyone asks proof of the certainty of such resistance he need only observe how unwilling the people have been and still are to submit to economic restraints even in the desperate emergency of this war. There lies the complete demonstration of the futility for us of economic planning through governmental authority."

y today
or too
d lead-
the in-
tionally,
constel-

n plans
he war
Ameri-
substi-
to be
ns but
."

on of
placed
ICC.
under
SEC
mis-
Com-

tered
there
phe-
need
ults,
the
and
ived

ties
ons
hey
at-
duc-
ght-
to
ney
ve
an-
of
ow
to
of
al

RAILWAY AND INDUSTRIAL ENGINEERING CO.

STATION AND GENERATING
STATION EQUIPMENT

WORKS AND MAIN OFFICE

CABLE ADDRESS - "PISCO"
COURIER - WESTERN UNION - 8 LETTER

GREENSBURG, PENNA.

DEAR FRIENDS OF MANY YEARS
IN THE ELECTRIC POWER BUSINESS.

Thirty years ago there were not many transmission lines. Those that were in operation were largely those needed to operate interurban traction systems. Do you remember those days?

It was then that we built the first practical airbreak switch. Since then we have continually worked at improving our product, perfecting our product, always aiming at the highest standards of Quality and Service.

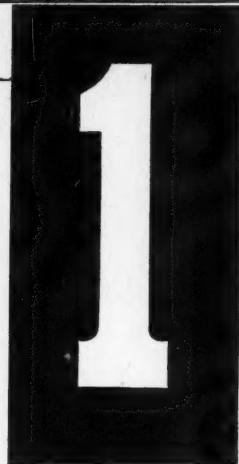
Our aims and objects are still the same. We still realize that our success is based entirely on giving you the Quality and Service you require for your present exacting needs.

We hope and believe that our record merits your continued and increasing confidence.

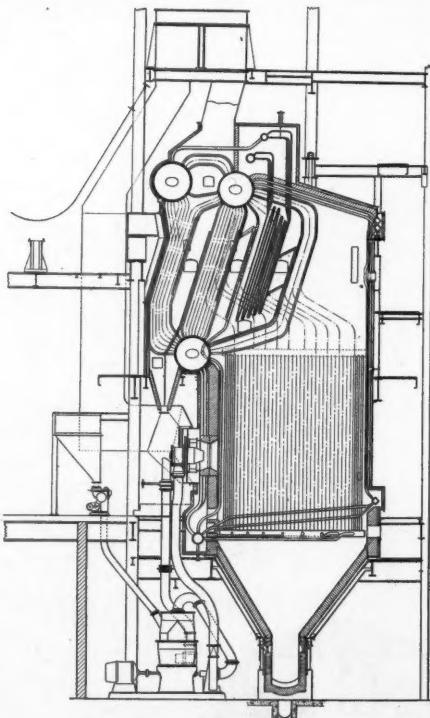
Sincerely,

RAILWAY AND INDUSTRIAL ENGINEERING COMPANY





year of wartime se



One of the two C-E Steam Generating Units responsible for the performance cited on the opposite page. Maximum continuous capacity—130,000 lb of steam per hr. Design pressure—725 psi. Total steam temperature—825°F.

ne service...

1 % outage

CHARGED TO THE BOILERS

Longer than your arm is the staggering list of varied war products that emanate daily from hundreds of plants throughout industrial Connecticut. And a basic factor in the continuity of their performance has been adequate electric power made available by the public utilities of the state.

One example is a power station where all the steam for a single 25,000 kilowatt turbine generator is supplied by two C-E steam generating units, one of which is shown on the left-hand page.

The great effectiveness of this power station in providing kilowatts for victory is proved by its operating record for a full year of wartime service in which the use factor established for the entire station was 87%. The quality of the performance of the steam generating equipment during this period is indicated by a combined availability for the two boiler units of 99% . . . only 1% outage was charged against the boilers.

Here is another instance of how the public utilities of America were ready for war because their peace-time policy was devoted to providing an abundant and dependable supply of electric power.

A-746



COMBUSTION ENGINEERING

200 MADISON AVENUE, NEW YORK, N. Y.

Canadian Associates

Combustion Engineering Corporation, Limited
Montreal • Toronto • Winnipeg • Vancouver



In any Climate... On any Job...

DAVEY COMPRESSORS



WARTIME CONSERVATION POINTERS

By "Davey Dan,"
the Compressor Man

AIR CLEANERS. These filters pay big "service dividends" for a small amount of attention required. Examine one of the filters every day. If it needs cleaning, the others will need it also. Empty and clean the sediment bowl. Fill with clean engine oil, level with bottom bead. Wash filtering element with oil and blow off with air. Never use gasoline or propane for cleaning air filters because such practice may lead to explosions in the air receiver.



PRESSURE GAGES. Should be checked periodically with a master gage.



SAFETY VALVES. Keep them clean and in working order by blowing at least once a day.



PACKINGS. Keep all packings on air joints snug enough so that no air is wasted through leakage.



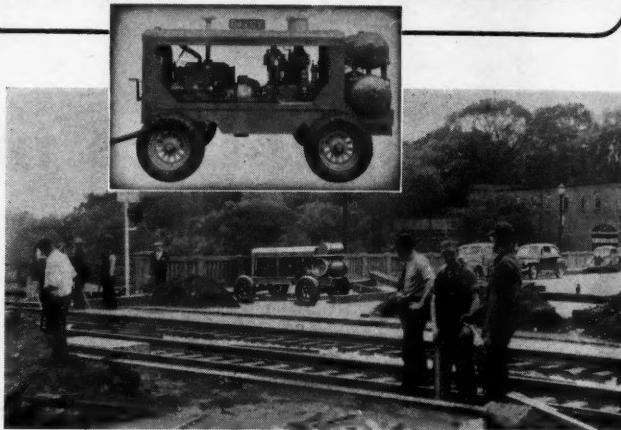
FAN BELTS. V-belts should be tight enough to prevent excessive slippage but not as tight as a flat belt used under similar conditions.



ENGINE SPARK PLUGS. Keep the electrodes clean and spark gap properly adjusted. Never attempt to bend the center electrode as this will crack the porcelain.



RESIST WARTIME WEAR FULL TIME PLUS OVERTIME



Here's Why Davey Compressors Stand Today's Crucial Tests

1. RUGGEDNESS. The outstanding characteristic of EVERY Davey Compressor is the ability to "take it" and come back for more in any CLIMATE or on any JOB. From the smallest pin to the heavy gage steel frame, every part of a Davey Compressor is designed and built so that, like a mountain locomotive, it always has a reserve of rugged endurance to get you "over the hump."

DAVEY Portable Compressors are available in the following sizes: 60-105 (illustrated)—180-210-315 cubic foot sizes, with gasoline, Diesel or electric power. Write for catalog showing complete DAVEY line.

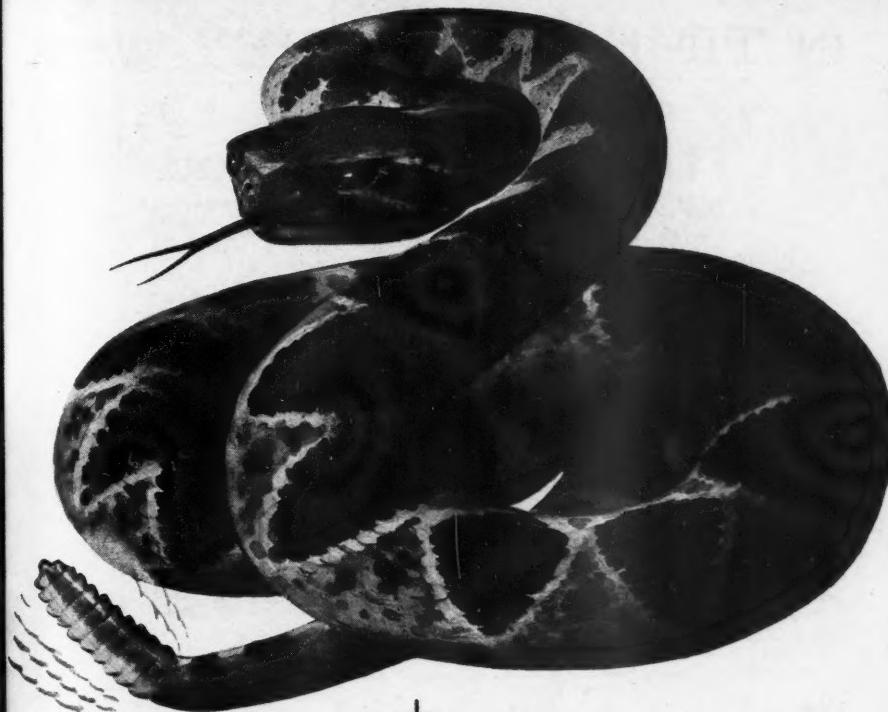
Some distinguished users of DAVEY Compressor equipment

Barker Bros. Construction Co. • Denver, Colo.
• Cleveland Railway Company • Connecticut Light & Power Company • Florida Power Company, Toledo, Ohio • Globe Contracting Company, Philadelphia, Pa. • Michigan State Highway Department • American Telephone and Telegraph Co. • Philadelphia Transportation Company.

2. CONSERVATIVE SPEED. Davey Compressors operate at moderate speeds, reducing operating trouble, minimizing maintenance costs, and greatly extending the life of the equipment. Engineering leadership, maintained through the years, today offers you the ONLY compressor with GUARANTEED LIFETIME VALVES—guaranteed to operate satisfactorily in any climate . . . on any job—to resist wartime wear everywhere.

DAVEY
Compressor Co.
KENT, OHIO

A RATTLESNAKE WARNS BEFORE IT STRIKES



A FAULTY VALVE GIVES NO WARNING



AVOID DANGER

INSTALL

NORDSTROM VALVES

FOR 100% SAFETY

KEEP UPKEEP DOWN

MERCO NORDSTROM VALVE COMPANY

*A Subsidiary of
Pittsburgh Equitable Meter Co.*

Main Office: Pittsburgh, Pennsylvania • Branches: Boston
Buffalo • Brooklyn • Chicago • Columbia, S. C. • Houston
Kansas City • Los Angeles • Memphis • New York • Oakland
Seattle • Tulsa • San Francisco

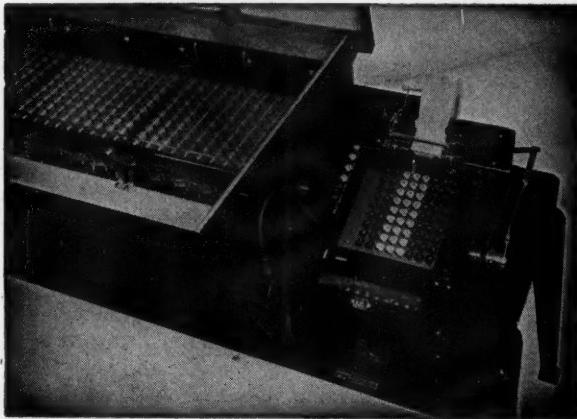


This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

SAVE 50%

IN TIME AND MONEY WITH

THE ONE-STEP METHOD



OF BILL ANALYSIS

WHAT effect is the war production program having on your bill distribution? Analysis of customer usage data will provide the answer to this important question. In addition to a knowledge of the existing situation, certain trends may be disclosed, a knowledge of which may be of considerable importance to you under circumstances where the picture is rapidly changing.

The One Step Method of Bill Analysis is ideally suited to meet the needs of this problem. It does away with the necessity for temporarily acquiring, training and supervising a large clerical force. Our experienced staff plus our specially designed Bill Frequency Analyzer machines can turn out the job in a few days and at the cost of only a small fraction of a cent per item.

We will be glad to tell you more in detail about this accurate, rapid and economical method for obtaining a picture of your customer usage situation. Write for a copy of the booklet "*The One Step Method of Bill Analysis*."

Recording & Statistical Corporation

Utilities Division

102 Maiden Lane, New York, N. Y.

Boston

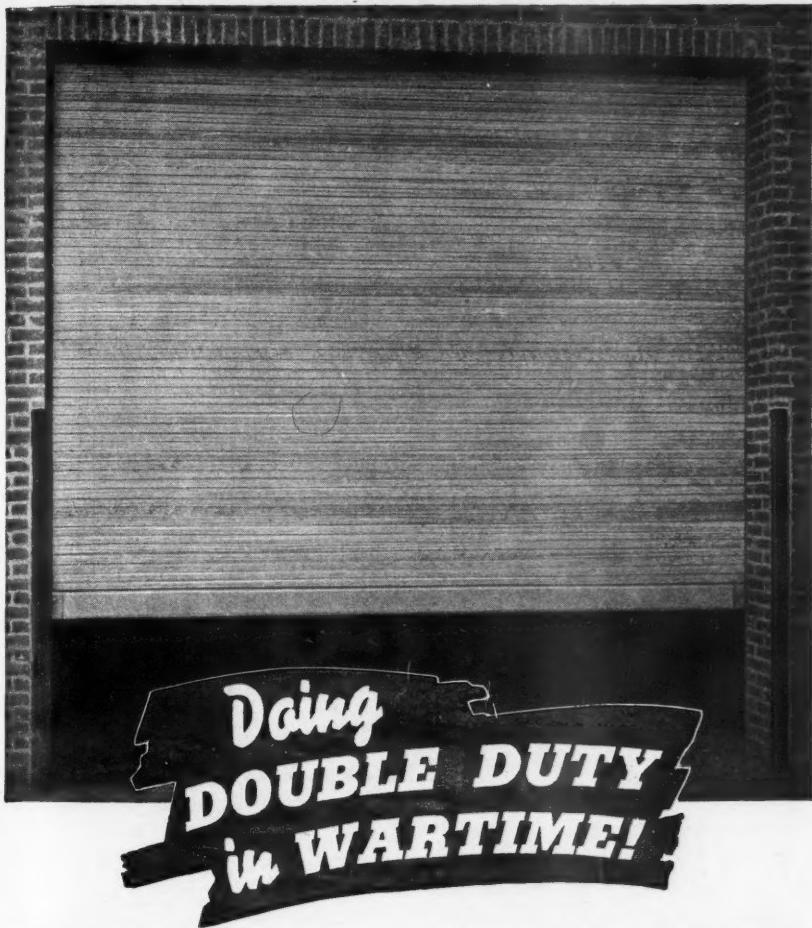
Chicago

Detroit

Montreal

Toronto

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



Doing
DOUBLE DUTY
in WARTIME!

KINNEAR *Wood* ROLLING DOORS

Kinnear WOOD Rolling Doors have been used for many years, to duplicate the efficient, space-saving, coiling upward action of Kinnear STEEL Rolling Doors.

Now—in wartime—when every possible pound of steel must be saved—these time-tested WOOD doors are the perfect answer to every service door need, in buildings of every type!

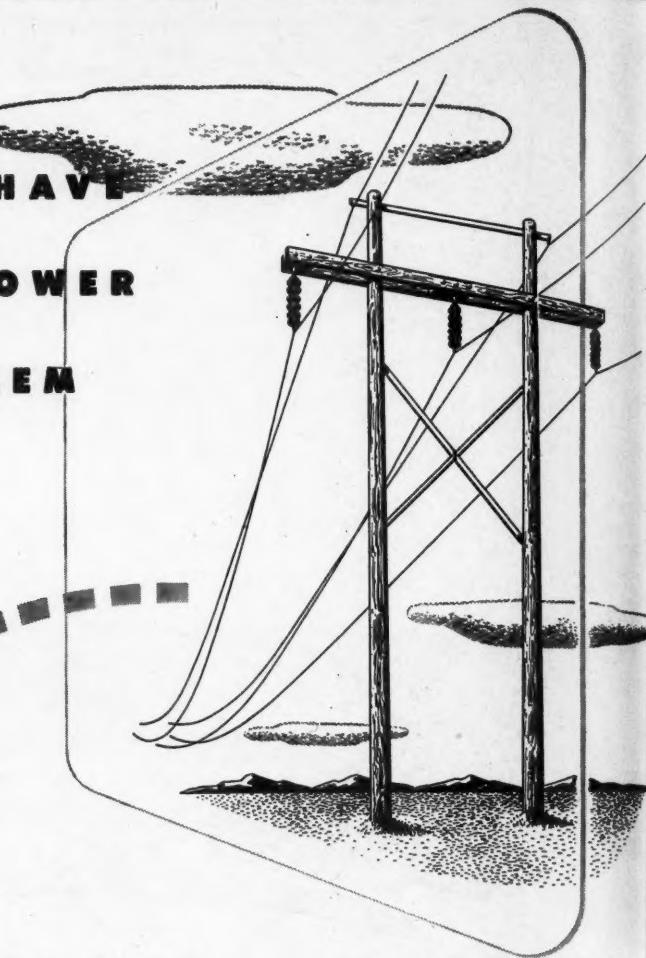
Look at the advantages Kinnear WOOD Rolling Doors offer: Smooth, quick, easy opera-

tion . . . a rugged interlapping slat curtain that coils out of the way and out of reach of damage . . . maximum savings in floor, wall and ceiling space . . . full protection against wind and weather . . . choice of motor or manual control . . . neat, modern appearance . . . and maximum savings in war-vital steel. Kinnear Wood Rolling Doors are available now, in any size, for new construction or replacements. Write for details. The Kinnear Mfg. Co., 2060-80 Fields Ave., Columbus 16, Ohio.

SAVING WAYS
IN DOORWAYS

KINNEAR
ROLLING DOORS

IF YOU HAVE
A MANPOWER
PROBLEM

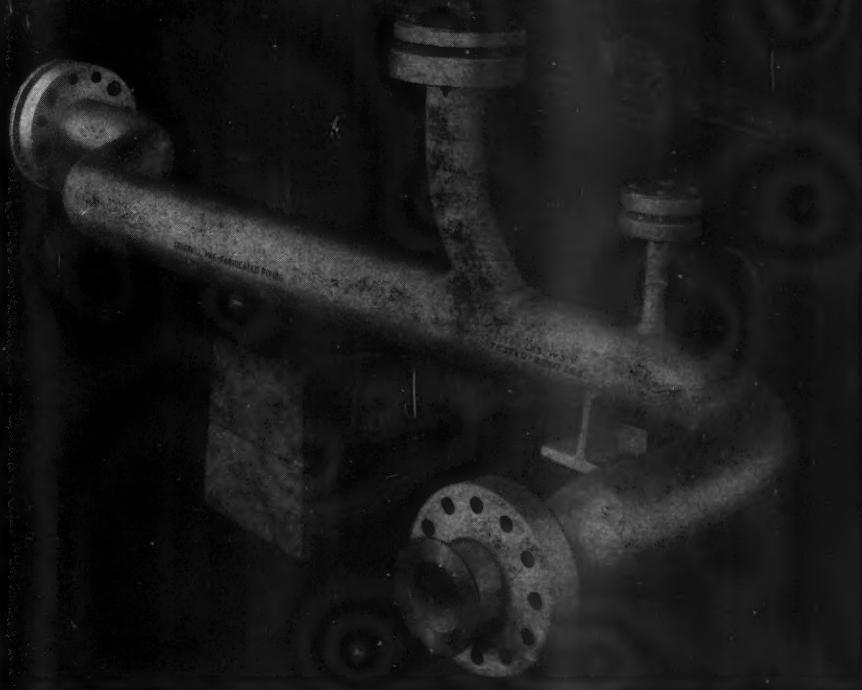


... let us help you. Our trained men and special equipment combine to help you meet today's increased demand for power. Whether yours is a problem of erection or maintenance . . . regardless of distance or terrain . . . you'll find Hoosier service efficient and economical.



ERCTION and MAINTENANCE OF TRANSMISSION LINES
NEW YORK 46 S. FIFTH ST., COLUMBUS, OHIO CHICAGO

HOW TO *Sub-Contract* YOUR PIPING PROBLEMS!



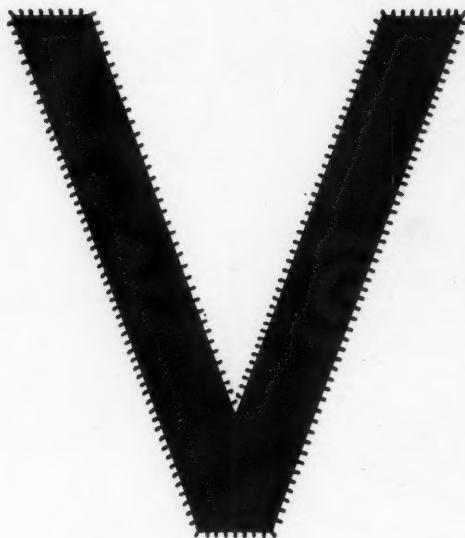
When added load necessitates added power piping in your plant, take this short-cut through the special engineering and prefabrication problems that precede installation. "Give the plans to Grinnell", and you'll "sub-contract" all the questions and troubles of interpreting super-pressure steam requirements into super-power piping.

Grinnell engineers are power specialists, qualified by long experience to interpret even the most complex power problems into speedily-erected, underwriter-approved piping systems.

Grinnell plants, strategically located to serve defense industries, are equipped with every last facility to prefabricate these vital systems.

Grinnell is helping leading manufacturers, utilities and process plants to meet defense needs for added power. Write for Data Book, "Grinnell Prefabricated Piping". Grinnell Company, Inc., Executive Offices, Providence, R. I. Branch offices in principal cities.

GRINNELL
WHENEVER PIPING IS INVOLVED



THE BIG JOB

Mercoid Controls are still being built and sold, though the volume is almost entirely on industrial types. These carry the highest war priority and find their way into war plants everywhere throughout the country, where they are doing their important part in the big job of essential production.



AUTOMATIC CONTROLS
FOR HEATING, AIR CONDITIONING, REFRIGERATION
AND NUMEROUS INDUSTRIAL APPLICATIONS

THE MERCOID CORPORATION, 4219 BELMONT AVE., CHICAGO 41, ILL.



AROUND THE EARTH *The Problem Is the Same*

These days it is often harder to obtain a new International Truck in the city where it was built than at some point hundreds or even thousands of miles away. This is because (1) the Armed Forces are getting most of the International Trucks we build today and (2) available stocks of new Internationals have been set aside for rationing to qualified civilian industries.

With trucks—as with many other articles and machines—we find ourselves forced to get

along with what we have. By servicing it and taking good care of it, we find we can make the old equipment do.

Around the world the problem is the same. The inconveniences caused by war are small compared with the benefits to come from lessons learned in war.

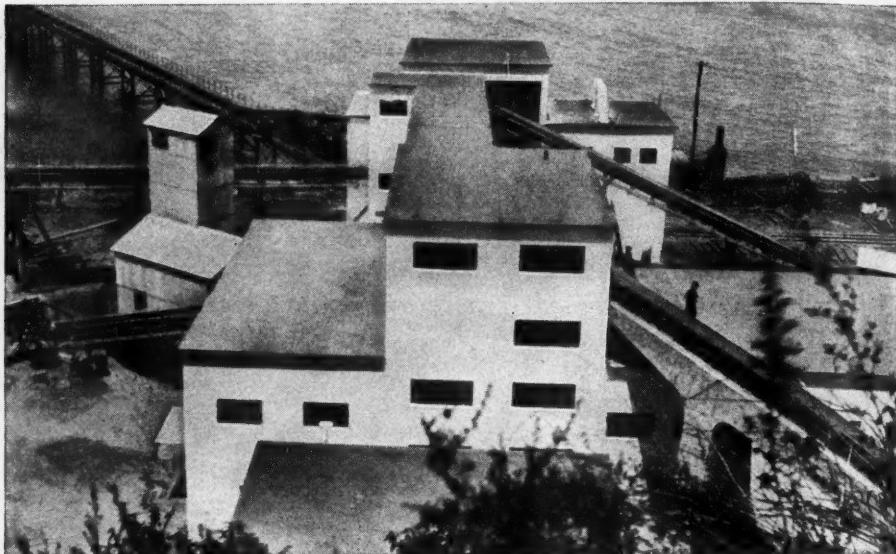
INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue Chicago, Illinois

Buy War Bonds... Save and Serve America

INTERNATIONAL HARVESTER

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

FOR MATERIAL AID IN MATERIALS HANDLING . . . It's ROBINS



A COMPLEX CONVEYOR SYSTEM
MADE SIMPLE
... by thorough engineering

ROBINS makes: BELT CONVEYORS • COAL AND ORE BRIDGES • BUCKET ELEVATORS • CAR AND BARGE HAULS • CAR DUMPERS • CAR RETARDERS • CASTINGS • CHUTES • CONVEYOR IDLERS AND PULLEYS • CRUSHERS • FEEDERS • FOUNDRY SHAKE-OUTS • GATES • GEARS • GRAB BUCKETS • PIVOTED BUCKET CONVEYORS • VIBRATING SCREENS • SCREEN CLOTH • SELF-UNLOADING BOAT MECHANISMS • SKIP HOISTS

FOR MATERIAL AID IN MATERIALS HANDLING . . . It's ROBINS

IN Coronel, Chile, a highly intricate and elaborate conveyor system was recently completed . . . designed and manufactured by Robins.

The materials handled include coal and rock. Sub-surface coal mining is carried on 1,200 feet below the earth's surface and extending 2 $\frac{1}{4}$ miles out under the sea. At this level, the mined material is brought to a central dumping station by a train of fifty 2-ton cars. The cars are automatically upturned, dumped, contents weighed and re-righted by a Robins Car Dumper . . . without uncoupling the cars.

The material falls into a Track Hopper leading to a Shaking Feeder which delivers it, at uniform rate, to the first of a series of 8 conveyors, one of which is 3,880 feet long—the aggregate of all being more than two miles long extending up to and along the earth's surface.

The last of these conveyors delivers the material to a screening station. Here fines and refuse are removed and the coal is sized on a series of Robins Gyrex Screens. The fines and segregated sizes are then conveyed to storage, or to railroad cars or to ships, as desired—in any combination of fines and sizes. When delivered to ships, the material travels along a 1,000-foot Dock Conveyor to reach a Shuttle Conveyor which is mounted in a hinged cradle so that the loading operations may accommodate changing tides and diverse drafts of ships.

This installation indicates how Robins engineering overcomes complex problems—reducing them to an efficient, ingenious, simple series of operations. Perhaps you are faced with a difficult conveyor problem. Your inquiry is welcome. Write Dept. PF-92 for full details and, if you like, summarize your problems and requirements. We can work directly with you or collaborate with your own engineering consultants.

ENGINEERS • MANUFACTURERS • ERECTORS

**ROBINS
CONVEYORS
INCORPORATED**

Founded in 1896 as Robins Conveying Belt Co.

PASSAIC • NEW JERSEY

MATERIALS HANDLING MACHINERY

- KET
INGS
KE
NG
STS
- STORAGE AND RECLAIMING MACHINES AND SYSTEMS • TAKE-UPS • LOADING AND UNLOADING TOWERS • TRIPPERS • WEIGH LARRIES • WINCHES • WINDLASSES



A Texas Utility President Says:

"I am in favor of your program and will boost it at every opportunity. It is a practical step to lower investment costs."



THAT'S a typical comment on General Electric's recent proposal to push ahead with the simplification and standardization of electric apparatus such as large power transformers, unit substations, switchgear, etc.

Along with many other statements in similar vein, it helps to confirm our opinion that the *next big step forward to lower costs will be found in the economies of repetitive manufacture of heavy electric apparatus.*

Behind this forecast is our experience in supplying "ready-made" unit

substations, metal-clad switchgear and the like at lower and lower prices, as compared with those of "tailor-made" designs. Wartime experience in the large-scale manufacture of G-E turbines for ships is additional confirming evidence.

In the final analysis, the decision to buy standard designs and ratings of heavy apparatus must rest with you and your engineers. That is why we ask your foresighted consideration of this important question. **General Electric, Schenectady, N. Y.**

The best investment in the world is in this country's future—BUY WAR BONDS

GENERAL  **ELECTRIC**

301-102E-170



The careful investor judges a security by the history of its performance.

KERITE

in three-quarters of a century of continuous production, has established a record of performance that is unequalled in the history of insulated wires and cables.

Kerite is a seasoned security.



THE KERITE INSULATED WIRE & CABLE COMPANY INC.
NEW YORK CHICAGO SAN FRANCISCO

Gates—Intake, Sluiceway and Spillway
Hydraulic Turbines—Francis and Propeller Types
Rack Rakes
Trash Racks
Valves—Pipe Line and Penstock

**NEWPORT NEWS SHIPBUILDING
AND DRY DOCK COMPANY**

NEWPORT NEWS, VIRGINIA

T
O

IN PL
TOP
ARE V

Where
able c
gasoe
on lan
are de
forma
heat a

TODD E

The



TWO-MILE CURTAIN OF HOT STEEL...GOING UP!

With desperate fury they dive in . . . trying to break through to bomb their target. But these Nazi bombers get just so far, then—WHAM! . . . they crash into a curtain of hot, tearing steel. For down there on the ground is a ring of American anti-aircraft guns . . . each one hurling more than a hundred two-pound shells two miles into the sky—every minute!



**IN PLANTS OF ALL TYPES
TODD BURNERS
ARE WORKING FOR VICTORY**

Wherever trouble-free, dependable combustion of liquid and gaseous fuels is a necessity . . . on land or sea . . . Todd Burners are delivering unsurpassed performance in the production of heat and power.

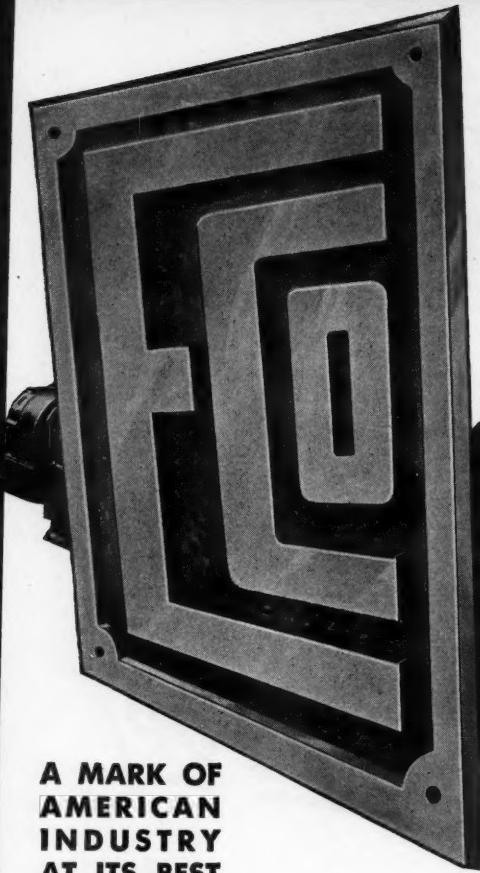


TODD BURNERS ★ ★ ON THE FIRING LINE OF AMERICA'S WAR PRODUCTION FRONT

**TODD SHIPYARDS CORPORATION
TODD COMBUSTION DIVISION
601 West 26th Street, New York City**

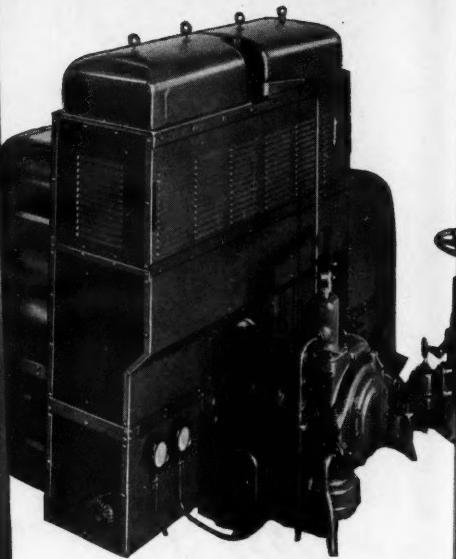
NEW YORK	MOBILE	NEW ORLEANS	GALVESTON
SEATTLE	BUENOS AIRES	LONDON	

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)



A MARK OF
AMERICAN
INDUSTRY
AT ITS BEST

WHAT'S BACK OF THE MONOGRAM—IN TURBINES



THE answer is DEPENDABLE POWER — smooth, quiet, economical, reliable POWER to drive anything from a pump to a generator.

That monogram implies a background in turbine development going back to the beginning of the century. The progenitors of today's Elliott turbines first took shape almost forty years ago. Even then they were good units—some of them are still in service.

Elliott turbines today have advanced to their present standard of excellence through a process of conservative development. The result is turbines whose engineering integrity builds confidence in every user.

When you need turbines either as units with their generators, or for mechanical drives—talk it over with Elliott.

Steam Turbine Department
JEANNETTE, PA.
DISTRICT OFFICES IN ALL PRINCIPAL CITIES



The Army-Navy "E" has been awarded to both the Jeannette and the Ridgway plants of Elliott Company.

ELLIOTT Company



Utilities Almanack

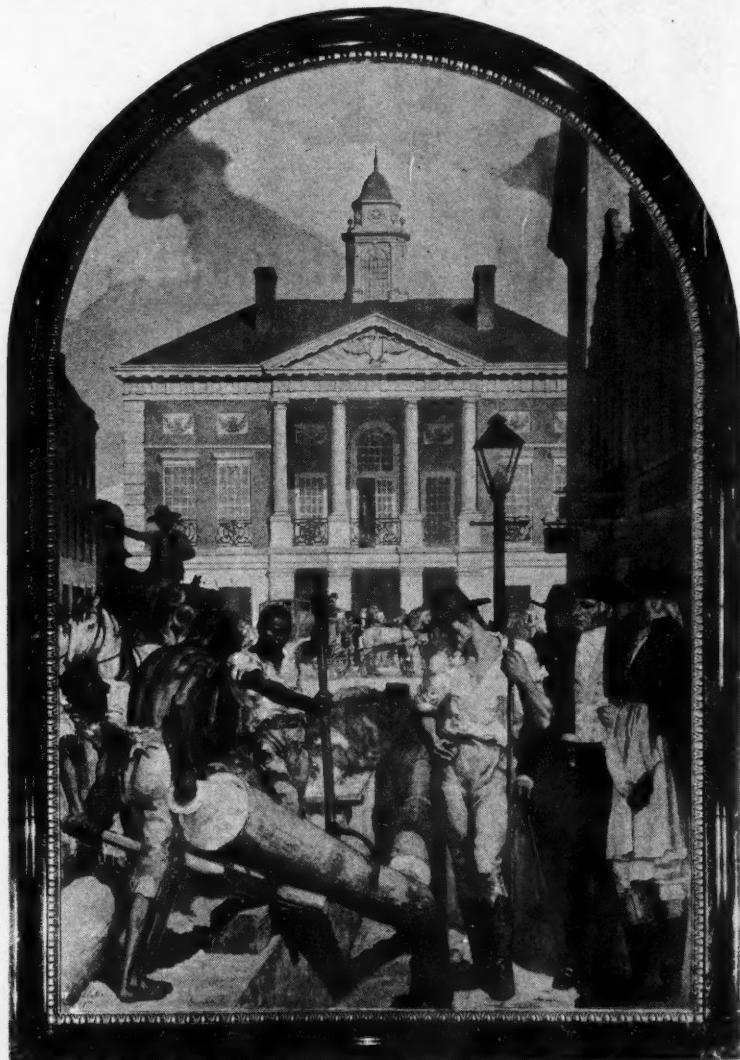
Due to war-time travel restriction, conventions listed are subject to cancellation.

SEPTEMBER

30	Th	American Society of Mechanical Engineers starts joint meeting with Engineering Institute of Canada, Toronto, Ont., Can., 1943.
----	----	--

OCTOBER

1	F	U. S. Independent Telephone Association will convene, Chicago, Ill., Oct. 14, 15, 1943.
2	S ^a	National Metal Congress will hold session, Chicago, Ill., Oct. 18-22, 1943.
3	S	American Welding Society will hold annual meeting, Chicago, Ill., week of Oct. 18, 1943.
4	M	Engineers Council for Professional Development will hold meeting, New York, N. Y., Oct. 23, 1943.
5	T ^u	National Safety Council starts National Safety Congress and Exposition, Chicago, Ill., 1943. (3)
6	W	American Public Works Association will hold meeting, Chicago, Ill., Oct. 24-27, 1943.
7	T ^h	American Gas Association will convene, St. Louis, Mo., Oct. 26-28, 1943.
8	F	Edison Electric Institute Accident Prevention Committee convenes, Chicago, Ill., 1943.
9	S ^a	Virginia Independent Telephone Association will hold session, Roanoke, Va., Nov. 4, 5, 1943.
10	S	National Electrical Contractors Association starts session, Chicago, Ill., 1943.
11	M	EEI Electrical Equipment Committee starts meeting, Cleveland, Ohio, 1943.
12	T ^u	American Water Works Association, Missouri Valley Section, starts convention, Des Moines, Iowa, 1943.
13	W	Electrochemical Society opens full meeting, New York, N. Y., 1943. (2)



A mural by Ezra Winter, reproduced by courtesy of Bank of the Manhattan Company

Soon after its chartering by the state of New York, the Manhattan Company started laying a water system for the city. Here wooden logs, the first water mains—in 1800, are being laid under the supervision of Alexander Hamilton, one of the founders, and Oliver Wolcott, first president of the Merchants Bank, later merged with the Manhattan Company.

Public Utilities

FORTNIGHTLY

VOL. XXXII; No. 7



SEPTEMBER 30, 1943

Through a Frozen Hell on Time

The tough job of construction of the carrier line which will be completed in October to Fairbanks, Alaska, and will be capable of bearing seven voice channels and fourteen telegraph channels, and which will measure 2,060 miles.

BY HERBERT COREY

THIS is not a miracle story. It is merely a glance at a job pulled off by hard rock men, lumberjacks, and men of the Signal Corps and of the Army Engineers. A trifling little matter concerned with frost bites, bottomless mud, angry little rivers running over rolling rocks, and the be-damnedest hard-biting flies that ever knifed through leather jackets. The net result was that the longest carrier line in the world will be completed in October to Fairbanks, Alaska. Possibly it is the second longest but it certainly was the toughest to build. The IT&T may have a slightly longer line.

It carries seven voice channels and fourteen telegraph channels and measures 2,060 miles. All of this is modern commonplace raised to high power. The only incident in the whole epic that approaches the questionable is the story of the two sergeants and the grizzly bear.

"The sergeants," said the Army Engineer, "at the close of a hard, sweaty day, were taking a swim in one of the little ice water rivers the Alcan Highway crosses."

The bear had been a kind of amateur garbage incinerator at the camp. No one cared to shoot him because bear

PUBLIC UTILITIES FORTNIGHTLY

pelts are on the mangy side in the summer time and he had grown so nearly friendly that when the men at night sat around the smudges lighted as a theoretical protection against the mosquitoes he used to sit just outside the limit of the firelight and listen. One of the sergeants said to the other as they splashed in the little river:

"Keerist!"

The other sergeant looked up from the water right into the eyes of the bear. The first sergeant took to the woods. The second sergeant dived, brought up a rock, socked the bear on his tender nose, and returned to his bathing. The bear, according to the first sergeant, climbed up on the bank and sat there and cried.

WHEN the war has been won the new system will presumably serve the civilian population of Alaska as well as the armed forces. It will supplant or supplement the radio stations which have given Alaska its only means of rapid communication with the rest of the world. War made reliance on the radio impractical for the Army and Navy and Air Forces stationed on our far northern gold coast. Not only is radio occasionally interfered with by what is loosely spoken of as the weather, but the enemy can listen in and experience has shown that even the best codes can be broken. And when the enemy is tired of listening he can often "jam" the radio so that nobody else can listen and make anything of it. It is probable that the carrier system would have been run through the 2,060 miles of mountain forest even if the Alcan Highway had not been built. When that great road was first planned the carrier system was accepted as an

integral part of the new scheme of communications. Without it, or a reasonable substitute for it, the road itself would have been unmanageable.

With the exception of such temporary constructions as were forced on our troops on Attu and in the jungles of the Pacific islands it is probable that the Alcan Highway was the toughest job of road building on global record. Only a relatively few miles ran through such comparatively flat country as the foothills of the Canadian Rockies. The rest of it was in the rough mountains. Even when valleys ran in the right direction they were not available because of flood danger. The rivers varied in width and depth but were alike in running at freshet pace from the day of the first spring thaw. The surface was by turns earthslides, ice-age boulders, and muskeg swamps that would not support a fence post. The most powerful bulldozers and 10-wheel trucks and sheep's-foot rollers ever built fought a climate that reeled between 70 degrees below zero to a summer heat that cooked the road surface into blinding dust. Grades were often unbelievable because cuts through hilltops were mere invitations to washouts.

MUCH of the road surface is of corduroy which will in time be surfaced with gravel. No other top covering would stand up under the hammering of the weather and the trucks. It will require constant attention for peace uses as well as for war. The bridges are as yet temporary and will be replaced with permanent structures in time. There are, broadly speaking, no towns between Dawson Creek and the Alaskan border, and the establishment of road maintenance sta-

THROUGH A FROZEN HELL ON TIME

tions at intervals became compulsory. When the road is opened to commercial travel it will no doubt be lined with billboards advertising dope for the no-see-um flies—which will not be of the slightest worth—and there will be Ye Olde Soure Doughe Innes here and there and perhaps some curb service. The girls will wear parkas and fly nets. It is a reasonable assumption, shared beyond doubt by the Japanese, that ultimately air stations will be chopped out and tourists who want to see Alaska over the week-end can chatter up in their helicopters.

All of this calls for a reliable system of point-to-point as well as end-to-end communications.

THE carrier system will fill this need for civilians as well as military when the war ends. There are nineteen repeater stations along the Alcan line at which the necessary boosting of power will be done. That is approximately one to each 95 miles. They will obviously be the nucleus of the road maintenance service, and the plan is to keep the highway in operation throughout the year. These stations are of more or less temporary nature at present and the crews are housed in prefabricated houses which were trucked in. Later they may be replaced by log structures, or perhaps encased

in logs as protection against the Rocky mountain winters. From them any breaks in the highway itself will be reported. Breaks in the line will be located by the devices now in use by telegraph and telephone companies. Without this plan for intercommunication the highway would be impractical.

The road building was done by the US Engineers and civilian contractors. That is the way in which the Engineers operate. They get all the firsthand information possible about a project before they advertise for bids. Then they watch the operation. In peace time the Engineers are able to get through with a prodigious amount of work without maintaining an overly large Army corps. When war came the Engineers expanded by taking in as officers qualified civil engineers and by enlisting in the ranks men who can take it no matter where they are sent. The Northwest was searched for hard rock men, lumberjacks, truck drivers, bulldozers, and camp cooks. The building of the highway was contracted for by sections and the Engineers kept an eye on the whole.

THE construction of the carrier system was managed in the same general way. The Engineers, being in control of all building operations, first obtained the general statement of what



Q"WAR made reliance on the radio impractical for the Army and Navy and Air Forces stationed on our far northern gold coast. Not only is radio occasionally interfered with by what is loosely spoken of as the weather, but the enemy can listen in and experience has shown that even the best codes can be broken. And when the enemy is tired of listening he can often 'jam' the radio so that nobody else can listen and make anything of it."

PUBLIC UTILITIES FORTNIGHTLY

must be done from the Signal Corps, which is responsible for communications of every kind in the Army, from pigeons to radar. The contracts were let by and the building supervised by the Engineers in coöperation and coördination with the Signal Corps. On its side the Signal Corps enlisted the Western Electric and the Bell Telephone Company. These two companies gave everything they had when it was asked for and volunteered when it was not. The Army and the companies worked together with an enthusiasm which must have been inexplicable to their critics. The first two sections of the carrier system were completed before the dates set and generals in Washington picked up their receivers and talked to the end of the wire. Connection was as immediate as in any local call. The tones came through clear and round. At the moment of writing the third section is due for completion in October instead of in December, as had been anticipated. The kind of a job it was is hinted at in the couplet of the builders:

Through muck and mire
We string our wire.

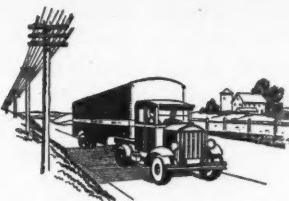
The first section of the carrier line tied in with regular telephone facilities at Helena, Montana. Railroad end was at Dawson Creek, British Columbia. From this point everything was moved by gasoline power. The mercury often dropped to 70 degrees below zero along the Alcan Highway line, and 60 degrees below was almost commonplace. Scientists worked out a new lubricating oil for the motors that remained fluid at these temperatures and relieved the drivers of the old-time pain of building fires under crankcases and pouring boiling water into radiators. The

American-built trucks stood up under the punishment. Some engines were kept running continually for days at a time at 5,400 revolutions per minute and yet they did not burn out. Parts were broken, of course, for the steel has not yet been forged that is unbreakable, but spare parts kept up with the progress. The mechanics went with the parts. To keep them happy hot meals were furnished. . . .

THAT may seem an unnecessary statement. But in the wilderness of the Canadian Rockies in midwinter firewood is hard to come by. The wood was plentiful, for the bulldozers had uprooted trees and lumberjacks had sawed and cut them into lengths when need be. But the wood was frozen hard as iron. Any man who has ever tried to build a morning fire with frozen wood when on a deer-hunting expedition will know what emotions that morning chore roused in the breasts of the cooks. They had no warm cookhouses, either, but battled with their job in tents. If they poured gasoline on the logs the tents might burn like torches. If they did not the men would have no hot coffee and flapjacks and bacon in the morning. Therefore the cooking was done on Primus stoves. But a Primus stove will not burn the doped gasoline used in the motors and there was no other gasoline available. So Science invented a filter to take the lead out of the red gasoline and the Primus stoves hummed and the men had their hot meals on time.

If the meals had not been hot—at least one meal a day—the building would have been delayed immeasurably. This is the excuse for printing an item of no apparent significance.

THROUGH A FROZEN HELL ON TIME



Alcan Highway Toughest Job on Record

“WITH the exception of such temporary constructions as were forced on our troops on Attu and in the jungles of the Pacific islands, it is probable that the Alcan Highway was the toughest job of road building on global record. Only a relatively few miles ran through such comparatively flat country as the foothills of the Canadian Rockies. The rest of it was in the rough mountains. Even when valleys ran in the right direction they were not available because of flood danger.”

Work began on the carrier line on November 22, 1942, on the first link which was to join Edmonton, Alberta, to Dawson Creek. The report to the Chief Signal Officer notes that in the next few days

“The worst storm in forty years hit Edmonton. Roads were blocked and the temperature was 28 degrees below zero. Train transportation ran every other day; freight trains ran whenever a train could be made, which added to the task of placing cross-arms and stringing 400 miles of wire and installing five repeater stations.”

THAT was only the overture. As the work carried on, the placing of poles became a martyrdom. Mud packs were put on top of the dynamite charges which were put on top of ice-age boulders and for some good reason the boulders were cracked when the charges were set off. When the muskeg swamps were reached the poles would

not stand up in them when the thaws came and so they were set on tripods which rested on the surface. Often pole setting was carried on in 5 feet of snow. The equipment for the first five repeater stations was flown in by the Transport Command of the Army Air Forces because the truck road was not yet competent to handle the business. These repeater stations, incidentally, were placed at 95-mile instead of the usual 200-mile intervals, because the shortage in critical materials had made it necessary to use a 30 per cent copper wire on a steel core for strength and conductivity had been accordingly reduced. Early in November the contractor for the first section reported that it would be impossible to meet the deadline on December 1st and a trouble shooter was flown in from the office of the Signal Corps in Washington. He reported:

“Initial requirements were decreased from two telephone circuits to only one

PUBLIC UTILITIES FORTNIGHTLY

circuit. Crossarms were placed on every second pole instead of on every pole. One hundred and fifty miles of No. 14 twist was hung on nails driven in the sides of telegraph poles along the railroad where pole setting could not be completed. Five wire-line groups were secured from the Bell Telephone Company of Canada in addition to the American Telephone and Telegraph line gangs already arranged for. One hundred and forty Signal construction men were rushed in to assist in the work. Actual work on a high-speed schedule with cross-arm and wire-line gangs assigned to specific sections every 40 miles was arranged with the contractor's project engineer. Nightly telegraph reports were made. The task was to place cross-arms and string 400 miles of circuit and install five repeater stations in a period of eight days. A cross in the repeater station at Dawson Creek made it necessary to strap this repeater station out, which impaired transmission somewhat."

AT 7:45 P.M. on December 1st the director of the Army Communications Division, Brigadier General Frank E. Stoner, talked with Colonel Heath Twitchell of the Corps of Engineers at Dawson Creek, British Columbia. The Signal Corps had met the dead line.

The carrier system on which it is possible to carry on simultaneously seven conversations and fourteen telegraphic communications on two pairs of wires has been picturesquely compared to the nature of light. White light passed through a spectrum may be reduced to its original elements and reassembled by being passed through another spectrum. So the seven talks and

fourteen messages travel along the wires separately—much as radio is divided into wave channels—and regain their identity at the terminals. Nowadays the crews at the nineteen repeater stations and the two terminals will be housed comfortably against the coming winter and the trucks will carry on over the Alcan Highway. No enemy fliers can touch the road. Military messages from Fairbanks may be sent to any point on the AT&T's Long Lines.

THOSE who worked on the highway and the lines speak most feelingly of the flies. The deer flies, the black flies, the no-see-ums. Hard work they accept as a part of life. Danger is a commonplace. Deep snow, the Arctic cold that freezes the lungs unless breath is filtered in, the perspiration that congeals the moment movement stops, the slipping and sliding of trucks on ice and mud, the furious little rivers that cannot be forded and which tear out the temporary bridges when the notion seizes, the sideslipping of hills, and the qualities of mud that seems to have no bottom are taken in a matter-of-fact way. Against them may be set off the best of Arctic clothing and hot meals on time and big pay.

"The men bought out all the furs the trappers had for sale along the right of way and the Hudson Bay Company traders had to send to the States for more...."

But the flies are demons. They bite through clothing. Head nets are no protection against them. Mosquitoes hum all night long and each mosquito is about the size of a praying mantis with a bill of forged steel. Even the weather-toughened faces of the workers on the line in summer are blotched

THROUGH A FROZEN HELL ON TIME

with blood when the day's work ends. The flies could not defeat the Signal Corps, but they turned the attention of some of the swampers to the possibili-

ties of life beyond the grave. John P. Jones is speaking:

"I wouldn't want to go to hell," said he, "if hell had flies in it."



Suggestions for Mr. Krug

On September 15th, public utilities all over the nation embarked on a nation-wide campaign to have their consumers conserve gas, electric, telephone calls, etc., as recommended by J. A. Krug, director of the WPB Office of War Utilities. Here are a few ideas clipped from recent newspapers, which might be applied to help along with the good work:

SANTEE, CALIFORNIA. The Marine paratroop training center near here, Camp Gillespie, has a powerful English bulldog mascot named "Tiger." He has chosen the telephone booth in the guardhouse as his home. To use the phone, the dog must be removed. Result: Unless the calls are vital, no one bothers Tiger. Doubtless other dogs could be trained to emulate Tiger's example.

EAST ST. LOUIS, ILLINOIS. The Wasson mine near here was recently knocked out of production because Mike Musko, a miner, got tired of a bunch of electric wires slapping him in the face every time he walked down a certain passage. He yanked them down and short-circuited the whole mine. Mike is now on probation, but is probably available for volunteer work on theater marquees, daylight signs, flood lighting, billboards, etc.

BALTIMORE, MARYLAND. Since OPA rolled back liquor prices, some local retail dealers complain they cannot maintain shelf stocks except by strictly rationing one bottle to a customer, removing stock from display windows, and turning out all neon signs, etc., tending to attract sidewalk trade. OPA would doubtless be glad to roll back any other kind of merchandise price—if anything has been overlooked.

NEW YORK CITY. Residents of several streets in the center of the Italian district celebrated the news of Italy's surrender to Eisenhower by building impromptu bonfires from crates and boxes right in the middle of the street. Some of the more practical boys and girls were observed taking the occasion to roast a few weiners and potatoes *al fresco*. More of such community celebrations would save a lot of cooking gas.



Will Refinanced Co-ops Be Self-liquidating?

The prospect for many of them is, in the opinion of the author, not very promising, all things considered, but the farmers served will be benefited as in the case of reclamation at public expense.

By ERNEST R. ABRAMS

IT is now more than eight years since the Federal government began subsidizing the carrying of central station electricity to practically every farmer in the land desiring it. Instituted as an emergency measure by executive order on May 11, 1935, to bring electricity "to as many farms as possible in the shortest possible time, and to have it used in quantities sufficient to affect rural life," it became a permanent activity of government on May 20, 1936, when the Rural Electrification Act received presidential approval.

One provision of the act authorizes the REA Administrator to make loans only to "self-liquidating" projects, "which give assurance of sufficient earnings to cover full operating cost and return of the loan with interest within a period of not more than twenty-five years." How closely has that limitation been observed? What is the

present status of REA-financed co-operatives? What hurdles do they have to jump on their way to self-liquidity? What are the chances of their ever reaching that goal? Let's take a look.

The major conditions imposed by the emergency REA Administrator on borrowers were, first, interest at the rate of 3 per cent per annum and, second, repayment of principal over a 20-year term. But these terms were liberalized substantially by the act of 1936. For one thing, the repayment period was increased to twenty-five years, and, although the act made no specific provision for it, many of the 20-year loans made by the emergency administrator have been revised for a 25-year payout. And for another, the rate of interest set by the loan contract was the average rate payable by the United States on its 10-year and longer obligations issued during the preceding

WILL REFINANCED CO-OPS BE SELF-LIQUIDATING?

year. Under this shifting standard, the rate charged REA borrowers since 1935 never has been higher than 2.88 per cent and has averaged slightly more than 2½ per cent.

THE act, furthermore, granted the REA Administrator discretionary power to defer all interest payments for as long as five years, although so far he has not exercised that authority widely. Under present conditions imposed by him, borrowers are permitted to accumulate, rather than to pay, interest for the first thirty months of the loan, and to pay only current interest during the next eighteen months. Not until this "honeymoon" is over, and the forty-ninth month is reached, is the borrower under any obligation to make payments on principal or accumulated interest. From the forty-ninth to the sixtieth month, he is required to pay \$3 monthly for each \$1,000 of principal; from the sixty-first to the seventy-second month, \$4 monthly per \$1,000; from the seventy-third to the eighty-fourth month, \$5 monthly per \$1,000; and from the eighty-fifth to the three hundredth month, a variable monthly sum per \$1,000, based on the rate of interest set by the loan contract. During the 1941 fiscal year, when the rate written into all loan contracts was 2.46 per cent, the monthly payment for the final eighteen years of the loan was \$5.35 for each \$1,000 borrowed. Moreover, interest is charged on accumulated interest after the beginning of the thirty-first month, and all payments from the forty-ninth month on include current interest payable on loans and accumulated interest, plus amortization payments on accumulated interest and principal.

There is still another provision of the 1936 act which makes it exceedingly difficult, if not impossible, for borrowers who were ever entitled to credit in the first place to default their debt contracts. This grants to the administrator the discretionary power to hold any borrower not technically in default of his loan contract, so long as current interest payments are made. He can defer all payments on principal for the full 25-year period of the loan, if only the borrower pays his interest in full.

The status of REA, as of April 30, 1943, was that it had available from appropriations a total of \$480,432,198, from which it had made allotments of \$462,381,850 to actual or prospective borrowers. Of this total, \$410,249,996 was earmarked for the construction or purchase of distribution systems, \$41,355,891 for the construction or purchase of generation or transmission facilities, and \$10,775,963 for the wiring or plumbing of farm homes, or for other purposes. And against these allotments REA had advanced a total of \$367,035,859 to 867 borrowers, of which 794 were farmers' coöperatives, 52 were public bodies, and 21 were private bodies. Collectively, they were operating 806 energized rural electrification systems.

As for the status of REA borrowers as of April 30, 1943, 228 were more than thirty days overdue in the payment of principal and/or interest to the tune of \$204,741. Of this amount, \$95,023 was represented by overdue interest owed by 202 borrowers, and \$109,718 by overdue principal owed by 162 borrowers. On the other hand, 537 borrowers had made "advance payments" totaling \$11,091,064.

PUBLIC UTILITIES FORTNIGHTLY

On the surface, the foregoing data make the financial status of REA-financed coöperatives appear rather rosy. Where only 26.2 per cent of all borrowers were behind more than thirty days in principal and/or interest payments to the sum of \$204,741, advance payments totaling more than fifty-four times that amount had been made by 61.9 per cent of total borrowers. But digging beneath the surface removes a little of that shine.

WHILE the first REA-financed system was energized about seven and one-half years ago, the average for all energized systems is still under three years. And until systems are energized and in operation, it is obvious that no revenues are produced with which to pay debts. Nor are revenues likely to reach even their average level until systems have been in operation long enough to connect most of their consumers, and until consumers have had a reasonable time in which to buy electric appliances. Somewhere between one and two years usually is consumed in this process of "getting going," and it is for this reason that the administrator has permitted borrowers to accumulate interest for the first thirty months of their loans, and has required no payments on principal until the start of the fifth year.

But many of these coöperatives have succeeded in getting their systems into operation, and in connecting their prospective consumers, in less than average time and well within the "honeymoon" period. So they have devoted revenues in excess of operating costs to anticipation of debt maturities, since no interest was payable for thirty months and no principal for four years.

Furthermore, no small part of these advance payments has been, in effect, the return of overborrowed principal to the lender. In some cases, optimistic promoters of rural coöperatives have overestimated their capital requirements, and have built their systems with but a part of the funds borrowed. In others, extension of farm lines by private interests into areas proposed to be served has cut the amount of capital required to build a smaller system. The return of these excess borrowings to REA is, of course, an "advance payment," but not from earned revenues.

THEN, too, practically all coöperatives, as a protection against heavy taxation, have required their consumers to become members of the coöperative and to pay a life-membership fee of \$5 before they are entitled to service. In numerous instances, the

G"The status of REA, as of April 30, 1943, was that it had available from appropriations a total of \$480,432,198, from which it had made allotments of \$462,381,850 to actual or prospective borrowers. Of this total, \$410,249,996 was earmarked for the construction or purchase of distribution systems, \$41,355,891 for the construction or purchase of generation or transmission facilities, and \$10,775,963 for the wiring or plumbing of farm homes, or for other purposes."

WILL REFINANCED CO-OPS BE SELF-LIQUIDATING?

whole of these membership fees has not been needed by the co-operatives for organizational purposes or working capital, and some part has been turned over to REA to apply on their debts. And while this handing over of membership fees may likewise be construed as an "advance payment" of debt, it obviously is not one made from a recurring source of revenue. Viewed from this standpoint, the advance payment record of REA borrowers is not so impressive.

The acid test of the ability of REA-financed co-operatives to become truly self-liquidating, as the act of 1936 requires, will not be applied until after most of them have "come to," following their seventh birthday parties, to find themselves faced with the necessity of making maximum payments on principal. Some insight into their capacity to meet these payments may be gained from excerpts from an opinion given Secretary of Agriculture Wickard by Solicitor Robert H. Shields of the Department of Agriculture, on the rights of the government, as the mortgage lender, with respect to proposed loans by REA borrowers to mutual insurance companies:

I am informed that a limited number of REA borrowers have such small cash reserves that a long-term loan of \$2,000 to \$3,000 would create an immediate impairment of the ability of the borrower to meet its debt service obligations during the current year. With respect to a much larger number, the net operating income for the 1942 year was less than the amount which will be required for the maximum annual debt service which will mature within the next few years. Others now have net operating revenues greater than the amount that will be required for the maximum debt service but, except for a few, the margin is small.

For the duration, at least, the prospects of increased operating reve-

nues for REA co-operatives are not encouraging. As REA Administrator Harry Slattery told the directors or trustees of REA-financed systems in his letter of April 19, 1943, "the war has affected and will continue to affect the trend of increased revenues," and he warned that the amount of electricity used by connected consumers "will be adversely affected by the drastic limitation upon the availability of electrical appliances." And Solicitor Shields told Secretary Wickard:

While the required interest and all principal payments (of REA co-operatives) will increase heavily during the next two or three years, no substantial increase in the revenues of most co-operatives can be expected for the duration of the war because of the limitation upon connections of new consumers and on the installation of electric appliances by old consumers.

But if the operating revenues of REA co-operatives will tend to remain static for the duration, not so with revenue deductions. Just as the labor and material costs of privately owned electric systems are increasing, so are those of the co-operatives. And just as the tax bills of private systems are expanding, so are those of co-operatives likely to be boosted. Commenting on this phase of the operating expenses of REA co-operatives, Solicitor Shields further said in his previously quoted opinion:

In many states the taxes of electric co-operatives will probably be greatly increased in the next few years. In Iowa, a recent opinion of the attorney general, if sustained by the courts, may increase the *ad valorem* taxes of co-operatives in that state by . . . an average of about \$6,000 each. In Kentucky, the court of appeals (being the court of last resort) has just held unconstitutional a tax exemption which electric co-operatives have enjoyed under an act of the legislature. The amount of taxes will depend upon the amount of assessed valuation but it may average an increased tax burden of \$4,000 or more per year for each Kentucky co-operative. In addition to an increased annual tax burden there is a risk of heavy payment of back



No Revenues Produced until Systems Are Energized

“WHILE the first REA-financed system was energized about seven and one-half years ago, the average for all energized systems is still under three years. And until systems are energized and in operation, it is obvious that no revenues are produced with which to pay debts. Nor are revenues likely to reach even their average level until systems have been in operation long enough to connect most of their consumers, and until consumers have had a reasonable time in which to buy electric appliances.”

taxes under court decisions of this kind. In most states the trend of assessed valuations under existing laws is materially higher and in many states new legislation or new legal interpretations may impose heavier taxes of several kinds.

FURTHERMORE, Oklahoma City recently filed a petition in the state district court, attacking the constitutionality of a new law which frees REA-financed rural electrification projects from *ad valorem* taxes through substitution of a 2 per cent gross receipts levy. If this contention of the city should be upheld by the Oklahoma Supreme Court, all REA co-operatives in the state would find their tax bills substantially increased.

Nor is this the complete tax picture. According to testimony given by Administrator Slattery and Deputy Administrators Craig and Nicholson before the House Appropriations sub-committee in early March, REA al-

ready has made loans to co-operatives to finance the acquisition of existing rural lines or systems to the tune of some \$15,000,000; it was awaiting approval of the Comptroller General, last March, of loans totaling \$16,278,168 for the acquisition of 157 existing systems during the 1943 fiscal year; and it proposed to loan an added \$10,000,000 for further acquisitions of existing systems during the 1944 fiscal year. Moreover, of the net increase of 29,513 in consumers connected to REA-financed systems during the last six months of 1942, according to Administrator Slattery, 11,100 resulted from the acquisition of existing systems.

So far, REA co-operatives have managed to stay beyond the reach of Federal tax gatherers, mainly because they have served members only. But

WILL REFINANCED CO-OPS BE SELF-LIQUIDATING

consumers added through acquisitions of existing lines are not members of coöperatives, which caused Solicitor Shields to advise Secretary Wickard:

Several coöperatives are faced, for the first time, with the payment of income taxes and certain other taxes because they are serving a large number of nonmembers as a result of the acquisition of existing lines.

It would not appear, then, in view of the outlook for increased taxes and operating costs for the duration, at least, that REA-financed coöperatives are likely to enjoy any rise in net income for the next few years. Rather, decreased earnings seem more in order, and just at a time when many coöperatives will be required to make their initial payments on principal.

Static operating revenues and mounting revenue deductions may, to be sure, prove mere transitory obstacles in the path of REA coöperatives, although taxes, once levied, have a tendency to stick. But a more serious hurdle facing them may prove difficult to surmount, because of its fundamental nature. This obstacle, in fact, threatens to destroy any possibility that many coöperatives can become truly self-liquidating.

IN commenting on the fact that REA loans to coöperatives represent 100 per cent financing, Solicitor Shields noted that the rate of principal repayment "is roughly equivalent to the rate of depreciation." If this were true, it would mean that the rural lines of these coöperatives would, on the average, be useless by the approximate time their loans were paid, since current depreciation apparently is not one of their operating deductions. And in that event, unless the coöperatives had accumu-

lated cash reserves from earnings equal to the cost of replacing their distribution systems, REA might be faced with the necessity of making new loans for plant rehabilitation on the general order of those just paid off.

Although the life expectancy of utility facilities varies widely in different sections of the land with climatic and soil conditions, and no estimate of the average life of rural lines, the country over, can have validity, there are substantial areas in the United States where experience has shown the average life of rural lines approximates seventeen and one-half years. And if the rate at which TVA depreciates its investment in distribution lines is a criterion, it apparently estimates the useful life of this class of utility facilities in the Tennessee valley to be in the neighborhood of twenty years. But REA would appear to assume a substantially longer span of life for rural lines in the entire nation, since its repayment period for loans covers twenty-five years, and its rate of payment, according to Solicitor Shields, "is roughly equivalent to the rate of depreciation."

At the risk of getting all "balled up" in figures, let's examine the mathematics involved. According to actuarial tables, the annual payment necessary to retire \$1,000 by the sinking-fund method, with interest compounded at $2\frac{1}{2}$ per cent, is \$39.10 or 3.91 per cent of the principal sum. That, incidentally, is the rate at which TVA depreciates its investment in distribution lines. Similarly, the annual payment necessary to retire \$1,000 in twenty-five years in the same manner is \$29.30 or 2.93 per cent of principal.

PUBLIC UTILITIES FORTNIGHTLY

And the annual payment required to pay off \$1,000 in the same way in seventeen and one-half years is \$47.50 or 4.75 per cent of the principal amount.

But if retirement of a given sum is provided through equal annual payments over a period of twenty-five years, only about 70 per cent of the debt will be paid by the end of seventeen and one-half years. And thus, if the rural distribution systems of REA-financed coöperatives should wear out in seventeen and one-half years, somewhere around 30 per cent of the loans created for their construction would remain unpaid. In that case, what would be the position of those coöperatives, if any, which, with permission of the administrator, had deferred all principal payments for the 25-year life of their loans, and had paid only current interest?

WHEN sharply increased taxes and operating costs of REA-financed coöperatives begin whittling down net incomes available for debt payment, or when uselessness of distribution systems develops faster than current maintenance can combat it, what will happen to REA's loans, now pledged with the Reconstruction Finance Corporation as security for advances made to REA itself? To be sure, the REA Administrator has the power to defer all payments on principal until the close of the 25-year period, but will these coöperatives be in any better position to pay

their full debts in one lump than they were to pay pieces of them over the years? Will Congress eventually come to the rescue of the coöperatives, and grant them relief similar to that accorded reclamation projects?

The reader may recall that story, of course, but let's run over it again quickly. Under the terms of the Reclamation Act of 1902, which first put Uncle Sam in the irrigation business, farmers were required to repay the net costs of their projects in 10 annual instalments, without interest but subject to delinquency penalties of one per cent a month, along with current operating costs and water rentals. But for various reasons, for some of which they were not to blame, most farmers couldn't make the grade. So Congress passed a second bill in 1914, extending the time of payment to twenty years.

BUT that didn't do the trick either; so Congress passed a third bill in 1924, fixing the rate of payment for those farmers who accepted it at 5 per cent of the average crop income per acre for the preceding ten years, and cutting the delinquency penalty to one-half per cent a month. This scheme, it was hoped, would enable the farmers to pay off in forty years; but in 1931 the Bureau of Reclamation estimated that, on the basis of current crop prices, many projects would not be out of debt for more than seventy years.



G"... if the operating revenues of REA coöperatives will tend to remain static for the duration, not so with revenue deductions. Just as the labor and material costs of privately owned electric systems are increasing, so are those of the coöperatives. And just as the tax bills of private systems are expanding, so are those of coöperatives likely to be boosted."

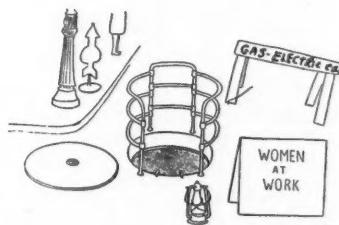
WILL REFINANCED CO-OPs BE SELF-LIQUIDATING?

And finally, in 1926, Congress passed a fourth bill, which extended the time of payment for all projects not on the 5 per cent of crop income plan to forty years, and wrote off more than \$27,456,000 of overdue payments, or roughly 19 per cent of the total cost of the projects. Yet, despite this repeated softening of terms of payment, there is no evidence that a single reclamation project has paid to the Federal government 100 per cent of the funds due it.

If rural electrification should go the way of reclamation, there's this at least to be said for it. After having had our

pockets picked so often in recent years to help pay the cost of making "cheap" electricity available to wide sections of the land, and to finance other forms of boondoggling, the boys who will benefit at our expense this time at least are deserving of the conveniences rural electrification will bring. No longer, to paraphrase Josh Billings, will our farmers have to get up at 4 o'clock in the morning, and burn 5 cords of wood and 7 cords of candles waiting for the sun to come up.

Now, at least, they can do it with electricity.



All-woman Trolley Loses Way and Conductor, Too

"**M**y God! I forgot Gertrude," is the title of the latest war-time streetcar anecdote.

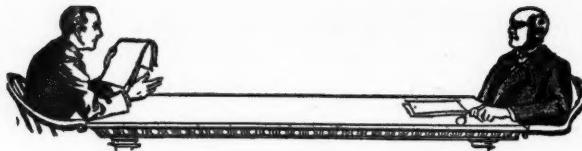
It seems that the all-woman crew of a Baltimore streetcar headed north one night not so long ago made a wrong turn which the motorman didn't discover for about a block.

"Gertrude, what shall I do, I'm going the wrong way?" asked the woman motorman of the woman conductor.

"I don't know," replied the conductor. "I'm new, too. I'll go call the company from the corner drugstore."

Soon after the conductor left, a resident of the neighborhood came out and advised the motorman to back up to the last intersection and then make the right turn. He was, he said, a retired employee of the transit company. The motorman followed his advice and after making the maneuver headed in the right direction. Two blocks later she slammed on the brakes and shouted:

"My God! I forgot Gertrude."



Nation-wide Conservation And the Utilities

The program for the saving or restricting uses, by voluntary effort, of critical materials, coal, petroleum products, natural and manufactured gas, electric power, communication service, water, and transportation is having, and will continue to have, the whole-hearted support of the industries involved.

By CHARLES A. ESSER

ALREADY engaged in a gigantic war effort, America's millions have been called upon by industry and government to speed the end of the war by eliminating every iota of waste so that fuel, transportation, man power, and critical materials may be utilized to the fullest extent possible to beat the Axis.

Already the public has been advised, through radio and newspaper publicity, of the broad outline of a 7-point voluntary conservation program, designed to save coal, petroleum products, gas, water, electricity, wire communications, and transportation. The public impression has been that in the case of some utilities there was adequate capacity and, therefore, no necessity for saving. The fallacy in this conclusion lies in the fact that the industries included in the 7-point program are so closely related that a saving effected in any one operates to the advantage of the others—and in all instances where savings are made,

man power and critical materials are released for more important war purposes.

In other words, the very fact that a conservation program is needed in the field of public service would imply that there is a shortage of supply in relation to the combined demands of the war effort and civilian requirements. This in turn may seem, on the surface, to conflict with various assurances and statements that the public utility industries, as industries, have maintained a fine war record for meeting all demands—relatively much better than many other industries.

Both viewpoints are sound: (1) that utility services are generally adequate; (2) that utility services should be conserved. The explanation lies in the difference between *capacity of the utility industries* to meet all demands, and the *available supply of basic materials and labor* needed in the process. Admittedly, the former, or productive phase (which is all that the

NATION-WIDE CONSERVATION AND THE UTILITIES

utility industries, as industries, have immediate control over, with respect to planning, operation, maintenance, etc.), is generally adequate in present or potential form. But the raw materials and man-power phase is something else. Fuels, appliances, replacement parts, technicians, etc., for rendering utility service must be drawn from the same sources of basic supply from which all American industry must draw; and here is where the shortages occur. It is here, also, that economies in any line, whether by utilities or other industries, make a corresponding contribution to the general welfare.

For months industry and government have been aware that while the production effort for war was gaining momentum, the time would come when even the extended efforts of the people would not be sufficient to supply the needs of the far-flung armies of the United Nations unless every citizen was made conscious of the vital necessity for conserving everything — eliminating waste entirely.

In more than a year and a half since Pearl Harbor, much has been accomplished to concentrate America's productive capacity on the war; and whenever specific campaigns have been conducted to that end, the public has responded magnificently. In many instances conservation has been forced by government order. In many other cases, industries hard pressed by war demands called for voluntary saving of their products or services. Among mandatory orders which have conserved vital war resources are those rationing foods, fuel oil, tires, automobiles, gasoline, and rigid limitation

orders on the use of critical materials. In general, the public has accepted the orders with little grumbling, and the savings for the war effort have been tremendous. In addition the public has been forced to save by government orders which have stopped the manufacture of certain civilian goods and thus removed them from the market.

SIGNIFICANT also in the campaign to shift from an economy of extravagance to an economy of frugality are the drives which have been conducted by the salvage division of the War Production Board. Millions of pounds of kitchen fats have been saved by the American housewife and by packing plants and slaughterhouses—fats vital in the manufacture of munitions and explosives—fats which hitherto had been running down the drain. The fat-saving program has been under way for ten months. Savings have increased from half a million pounds a month to 8,000,000 pounds a month.

Many millions of pairs of silk stockings have been gathered to boost the supply of materials for military uses. A tin-can gathering campaign has produced remarkable results.

Scrap iron and steel have been collected in vast quantities. Although 80 per cent of the scrap iron and steel comes from industry, it was the American home that started the ball rolling and made industry conscious of the great opportunity for supplying these much needed materials. Copper scrap also has been gathered in large amounts. Drives are still under way for these vital critical materials.

Waste paper is another critical material, and the American basement provided that at first in such quantities

PUBLIC UTILITIES FORTNIGHTLY

that it was difficult to handle. A drop in collections and gradual consumption for war purposes of the amounts collected have caused another shortage and more waste paper is needed.

So it is evident that America is not unfamiliar with the need for saving—the need to eliminate waste. And now government agencies and industry are projecting this new program, more elaborate than others and designed to educate the American people in the need for conserving one resource because of its relationship to another. The idea is to bring together separate programs of the seven industries—all vital to the war effort—in such bold relief that the public will get a clear picture of the relationship among them and voluntarily save those resources and services. Coöoperating with the industries involved are the Office of War Utilities and the Office of Civilian Requirements of the War Production Board, the Petroleum Administration for War, Solid Fuels Administration for War, Office of Defense Transportation, and the Office of War Information.

First announcement of plans for the voluntary program was made late in July and since then every industry, in coöperation with government agencies, has been engaged energetically in

surveying every possible means of effecting savings and of carrying the message to the individual citizen.

The initial announcement was made by Secretary of the Interior Harold L. Ickes, Defense Transportation Director Joseph B. Eastman, and War Production Board Chairman Donald M. Nelson. In the announcement it was pointed out the voluntary campaign would be directed at household, commercial, and industrial users and that industry would get the full backing of government agencies in the effort.

AT that time the three top government officials issued a statement in which they said :

Conservation of fuel, man power, equipment, and materials is a "must" for the United States if we are to achieve the maximum war production every American wants.

Every pound of coal, every gallon of oil, every cubic foot of gas that can be saved means that our national energy pool is strengthened by just that much. Every man-hour saved in the production of these basic fuels, in the production of electricity, in transportation, and in communications is a man-hour that can be used for something else. Every pound of tungsten that is saved in the production of electric lamps is a pound that can be used in the production of radar equipment.

These savings and the countless others that will result from a broad conservation campaign may appear small in the average household or the average industrial or commercial plant. Multiplied by millions of homes and thousands of factories and stores, however, they are tremendous. The saving of a single ton of coal next winter by one householder will not win the war. But



G"Both viewpoints are sound: (1) that utility services are generally adequate; (2) that utility services should be conserved. The explanation lies in the difference between CAPACITY OF THE UTILITY INDUSTRIES to meet all demands, and the AVAILABLE SUPPLY OF BASIC MATERIALS AND LABOR needed in the process. Admittedly, the former, or productive phase . . . is generally adequate in present or potential form."

NATION-WIDE CONSERVATION AND THE UTILITIES

if 18,000,000 householders do it, their combined effort will go a long way toward winning the war. That same thing applies with equal or even greater force to each of the other industries represented.

We have, therefore, called upon the coal, petroleum, electric, natural and manufactured gas, water, communications, and transportation industries to join with us in a broad conservation campaign to accomplish these results. The campaign will be voluntary. Cooperation of these industries in asking the public to use their services only as absolutely necessary represents a real sacrifice by them. We ask the American public to appreciate that sacrifice and to give them and the war effort enthusiastic and unstinting cooperation as this campaign develops.

And so the plans for the campaign began and they have developed rapidly, with an interindustry committee supervising the over-all drive in cooperation with the war agencies—not with the view of detracting from the great work industry already has done to encourage saving, but to consolidate the efforts of all behind one concentrated movement toward the greatest possible consciousness of the need for saving.

If the voluntary conservation campaign does not produce the necessary results, it may be necessary for the government to impose mandatory restrictions upon the resources and services far beyond what already has been done in that direction. This comes from War Production Chief Nelson, in the face of the knowledge that such a mandatory program would impose tremendous burdens upon industry and would tax the government agencies assigned to enforcement.

Among the mandatory orders which may be issued, if the voluntary campaign does not produce the necessary results, are those calling for a national brownout and more rigid restrictions upon the use of fuel, gas, water, and

communications. For example, the Office of War Utilities already has drafted a tentative order calling for a brownout and setting up specific restrictions against unnecessary use of electricity. This order and a similar WPB order on lamp bulbs were laid aside in favor of the voluntary program. Unless the public responds to the appeal for restricted use of telephone service, a mandatory order could be issued which would place a specific time limit on the use of telephone service. Similarly, mandatory orders might be issued to effect savings in the other industries.

Plans for achieving the savings necessary include resort to every form of advertising and publicity which can be used. Every kind of group or organization—industrial, business, civic, fraternal, social—that can lend assistance, will be called upon to do so. Direct messages will be carried to consumers so far as possible. Every effort will be made to demonstrate to the individual the great savings that can be made if waste is eliminated in the use of every resource and service.

The war effort needs man power and all other critical resources. Man power is recognized as the number one problem today. There is agitation for a national service law. The War Manpower Commission has used the Selective Service law to force draft-age fathers into war industries. Government officials frankly were worried when war production failed to gain during the early summer and seemed to have struck a plateau beyond which it could not rise. Recently improvement in production has become evident, but still the increase in output is not adequate to meet the overwhelm-



Necessity for Conservation

“FOR months industry and government have been aware that while the production effort for war was gaining momentum, the time would come when even the extended efforts of the people would not be sufficient to supply the needs of the far-flung armies of the United Nations unless every citizen was made conscious of the vital necessity for conserving everything—eliminating waste entirely.”

ing demands of a growing war tempo. War production needs more men, and government and industry alike agree that savings effected in the industries covered by the over-all voluntary conservation program will release man power for other war work as well as conserve transportation and critical materials.

Conservation of Critical Materials

THE man-power problem is so closely related to the whole production picture that it is impossible to separate it. In the final analysis it is man power that produces. In the face of this fact, only last month WPB Chairman Nelson said it was clear that military and essential civilian demand for critical metals would be greater than available supplies during the fourth quarter of this year.

“Although carbon steel supplies were the controlling factor in making allotments of copper, aluminum, and alloy steel—the other controlled mate-

rials—the latter are still extremely tight,” said Mr. Nelson. “Copper production, particularly, is adversely affected by current serious man-power shortages.”

Getting their proportionate share of the fourth-quarter supplies of these critical materials were sixteen claimant agencies representing military and civilian requirements, lend-lease, and other exports. The requests of the agencies were cut by 13 per cent, as against a 25 per cent cut for the third quarter, indicating the agencies are doing a better job of programming as they become more conscious of the scarcity of critical materials.

J. A. Krug, chairman of WPB's Requirements Committee as well as Director of the WPB Office of War Utilities, said total requests from claimant agencies for carbon steel for the fourth quarter amounted to slightly more than 19,500,000 tons, as against an estimated supply of a little under 15,500,000 tons.

NATION-WIDE CONSERVATION AND THE UTILITIES

"In the face of such shortages," said Mr. Nelson, "the degree of essentiality of an individual product, whether it be a gun or a cook stove, is the measure by which allocations of critical materials are made.

"It is of equal importance to maintain the health and welfare of the soldier on the fighting front and the worker on the home front. Production of goods for both is the responsibility of the War Production Board."

Tungsten is another scarce commodity and the consumers' durable goods division of WPB has been insisting that unless conservation is effected promptly, there will be a shortage of the metal for manufacture of radio tubes and radar equipment for the Army and Navy. As an illustration of the extensive use of tungsten by the civilian population, it is pointed out that if the use of electricity could be reduced by 10 per cent, 75,000,000 lamp bulbs would be saved annually, releasing quantities of tungsten for the war effort.

The review of the critical materials situation is given first so that its importance will not be lost sight of in considering individually the conditions in each of the industries specifically gathered in the nation's wide conservation program.

Conservation of Coal

PERHAPS a significant point to make at the outset in consideration of the coal conservation program has to do with a somewhat paradoxical situation with respect to conversion from oil to coal. This conversion drive has been directed by the industry and the Petroleum Administration for War and has resulted in an annual saving of 62,-

282,199 barrels of oil, principally in the East and Middle West, where transportation difficulties are the most critical. The paradox lies in the fact that it is also difficult to transport coal, but studies have determined that while minor difficulties might be encountered as a result of such conversion, on the whole the fuel oil situation is tighter than coal. Another important point which must not be overlooked is that the Petroleum Administration is taking a long-range view of the problem. At the present rate of consumption there is a visible supply of oil to last fourteen years, whereas the coal supply will last two thousand years, according to present estimates. There are differences of opinion regarding the 14-year figure for oil, but it seems sound economy for the nation to convert to coal even if there is a 100-year supply of oil against two thousand for coal.

Along with the Solid Fuels Administration, the Bureau of Mines is working diligently on a program to conserve coal. The bureau has estimated that requirements for the current coal year will amount to some 665,000,000 tons, and it is predicted that output will fall about 25,000,000 tons short of that figure, which means that, even taking carry-over stocks into consideration, a rigid conservation program is necessary lest we run into coal shortages in various parts of the country.

THE Bureau of Mines has appointed the National Fuel Efficiency Council, composed of national authorities in the field of fuel utilization. The council has made preliminary studies of the problem and has concluded that nearly 60,000,000 tons of coal can be

PUBLIC UTILITIES FORTNIGHTLY

saved annually by the elimination of waste in the home and in commercial and industrial establishments. If the program outlined comes even close to the possibilities for saving, the nation will get through the coal year without difficulty and have a small surplus.

The council is now organizing engineering personnel on a national scale, to be supplemented by regional and local fuel and engineering experts whose principal job will be to contact every commercial and industrial establishment using fuel of any kind to make suggestions and recommendations for conservation, both by improved operation of boilers and furnaces and repair and improvement of distribution systems. To reach the household consumer, where a large percentage of waste is evident, appeals will be made to groups of home owners through organizations already established, such as Parent-Teacher associations, women's clubs, luncheon clubs, and the like. Specialized literature will be made available to cover various fuels when burned in different types of equipment.

As an integral and important part of this program, publicity and advertising are to be widely used. OWI already has prepared publicity data which will be broadcast to reveal the extent of waste and the methods of effecting savings.

It is estimated that one-third of the fuel normally used for heating homes and other buildings in the United States is wasted through inefficient heating systems, inexpert operation of the heating plant, unnecessary heat losses from the building, and careless habits of daily living.

Whatever saving can be effected will contribute substantially to saving of man power, transportation, critical materials, and the coal itself. Ten per cent reduction in use is the goal set. It is of extreme importance that this goal be attained, in view of the vital place that coal holds in the national economy. It is needed for the manufacture of iron and steel, explosives, synthetic rubber, and dozens of other war needs. It directly powers most railroads and generates better than 50 per cent of the total electric power used in the nation. More than half of the nation's homes are heated with coal. Man-power and equipment shortages have placed an increasing strain on mine production and strikes have had their effect on reduced production.

General suggestions which will be made for conserving fuel will follow these lines: Heat-seal the building; control heat output; check your furnace; follow approved firing practices; cut heat load; don't waste hot water; protect stored coal.

Appeals for conservation will be



Q"WHATEVER [fuel] saving can be effected will contribute substantially to saving of man power, transportation, critical materials, and the coal itself. Ten per cent reduction in use is the goal set. It is of extreme importance that this goal be attained, in view of the vital place that coal holds in the national economy. It is needed for the manufacture of iron and steel, explosives, synthetic rubber, . . ."

NATION-WIDE CONSERVATION AND THE UTILITIES

made on two fundamental themes: Guard against coal shortage during the winter with possible effects upon health and comfort, and conserve as a patriotic duty, for coal is a "fighting weapon."

Conservation of Petroleum Products

THE entire nation has been given a taste of the tremendous demand for petroleum products. The public has been submitting to gasoline rationing for some time, partly to conserve tires, automobiles, equipment, and transportation, but largely because there is an actual shortage of gasoline, which is an important petroleum product. That is the case today. Last year, the big problem was transportation, by railroad tank car, by tanker, and by pipe line. There just weren't enough transportation facilities to get the required amounts of oil and gasoline to the proper places. This was particularly true in the East. The continuous step-up in military activity in Europe, together with increased demands for oil for war production, have made the oil problem doubly critical. Without drastic curtailment of consumption, the nation faces an actual oil shortage this winter. As for gasoline, Secretary Ickes, Petroleum Administrator for War, has repeatedly predicted the nation may face a famine.

One of the most serious problems connected with regulating the demand as against the supply of petroleum products has been that of educating citizens in heavy oil-producing sections that there is actually a shortage for them, as well as for those areas where no oil is produced. This is obviously true, because distribution must be bal-

anced if the nation is to most effectively produce for war.

THE Petroleum Industry War Council coöperating with the Petroleum Administrator, has received a report from its committee on economics which is startling, if not alarming. The committee reports that there will be increasing shortages of petroleum from now on and that the shortage will reach 508,000 barrels a day by the third quarter of 1944. This is predicated upon an estimated daily demand of 5,219,000 barrels by the fourth quarter of next year, an all-time record. There in cold figures, conservatively arrived at, is the best reason for conservation. To win this war at the earliest possible date, it is necessary that every available drop of oil be supplied to the United Nations' forces.

Here are some interesting figures on consumption which should impress the most skeptical: It takes 12,500 gallons of 100-octane gasoline to train a pilot; a Flying Fortress uses 400 gallons of 100-octane gasoline an hour, and a destroyer uses 3,000 gallons of oil an hour at top speed; an Army transport burns 33,000 gallons of oil a day; there has been an 11,000 per cent increase in motorization in this war as compared to the last war.

Much the same type of campaign for saving oil is being outlined as that applying to coal, so far as elimination of waste in the home and factory is concerned.

Conservation of Natural and Manufactured Gas

A FEW figures will clearly demonstrate the need for conservation



The Alternative of Mandatory Restrictions

If the voluntary conservation campaign does not produce the necessary results, it may be necessary for the government to impose mandatory restrictions upon the resources and services far beyond what already has been done in that direction. This comes from War Production Chief Nelson, in the face of the knowledge that such a mandatory program would impose tremendous burdens upon industry and would tax the government agencies assigned to enforcement."

of manufactured gas. In 1942 total production of manufactured gas was 441,400,000,000 cubic feet. It required 762,000,000 gallons of oil and 8,139,000 tons of coal and coke to produce it. It required 4,800 50-car trains to transport the fuel. The demand is steadily increasing. Savings that can be made in coal, oil, and transportation, as well as man power and critical materials, are self-evident, if the goal of a 10 per cent reduction is attained in the use of manufactured gas.

Natural gas output is restricted definitely by the capacity of transmission lines. The lines are now taxed to capacity and materials are not available for greatly extending the transmission facilities. Government limitation orders on both natural and manufactured gas extensions have failed to halt the increasing demand, because of the critical need in certain areas.

Natural gas production in 1942 amounted to 1,771,000,000,000 cubic feet.³ A 10 per cent saving can be made.

Savings can be made in cooking, water heating, house heating, and refrigeration among home owners. Commercial and industrial savings also can be effected.

Conservation of Electric Power

POWER capacity in the United States has been increased since the start of the war program by some 8,000,000 kilowatts, so that by the end of 1944 capacity will be in the neighborhood of 56,000,000 kilowatts. Consistently, the power industry in coöperation with the Office of War Utilities has kept pace and even outdistanced the demands of the war effort, so far as capacity is concerned. But this is only half the story. Coal, petroleum prod-

NATION-WIDE CONSERVATION AND THE UTILITIES

ucts, and natural gas are used to make approximately 65 per cent of the nation's electric energy. Should shortages in any of these fuels become so severe as to require rationing to utilities, considerable capacity would be rendered useless. Generators operated by steam developed from coal, oil, or gas have no value unless the fuel is available. In 1942 generating plants consumed 68,429,000 tons of coal or coke, 15,300,000 barrels of fuel oil, and 234,113,000,000 cubic feet of gas.

One and one-half pounds of coal can be saved, for example, by cutting out one kilowatt hour of electricity production. Some other interesting figures reveal the part electric utilities can play in the over-all conservation program:

Twenty-six million residential consumers in the United States consume 27,000,000,000 kilowatt hours; 1,000,000 rural consumers use 3,000,000,000 kilowatt hours; 4,000,-000 small commercial and industrial consumers use 27,000,000,000 kilowatt hours; and large industrial consumers use 130,000,000,000 kilowatt hours.

A 10 per cent reduction in domestic and commercial consumption would save more than 5,000,000,000 kilowatt hours, which would mean a saving of about 2,880,000 tons of coal annually, nearly 1,000,000,000 ton miles of transportation, 1,000,000 barrels of fuel oil, and 9,500,000,000 cubic feet of natural gas. In addition, 75,000,000 lamp bulbs would be saved, releasing copper, tungsten, and molybdenum for other war uses. The saving in coal would be more than 4,000,-

000 tons, if that fuel were used alone. All the way down the line, vital manpower and critical materials would be conserved.

The electric utilities throughout the nation have joined in the program to effect savings in the use of electricity to the fullest extent possible. That includes the utilities operated privately and publicly. Every type of organized group, including trade associations, civic organizations, municipal, state, and national associations, have been solicited for their aid. Added to that, the utilities are to carry on an intensive campaign among their residential customers, as well as commercial and industrial, to instruct them in ways of making substantial savings.

The general theme for saving electricity is centered around elimination of all unnecessary lighting and reducing to a minimum many forms of necessary lighting. Daytime lighting, except where it is absolutely necessary, is discouraged. Included is ornamental, indoor and outdoor advertising, promotional and display lighting, show window lighting, lighting of outdoor business establishments, general interior and show case lighting, air conditioning, and white-way lighting.

One of the points that will be stressed in the save-electricity campaign is that it is a job for the whole family. Every man, woman, and child in the nation can contribute to the elimination of electric energy waste by avoiding unnecessary use of energy. Turning out lights not needed may seem a minor item in a single home, but over the nation the savings will be tremendous.

Much can be saved also by careful use of appliances.

PUBLIC UTILITIES FORTNIGHTLY

Conservation of Communications

THE telephone industry has spent more money in the last year and a half to *discourage* the use of its services than it spent to *encourage* patronage in the previous decade. Yet today the demand for telephone service, both local and long distance, is greater than ever before in the history of the industry. Long-distance calls doubled in volume between 1941 and 1943, and local calls in some sections have taxed exchange facilities beyond capacity, to the end that in many instances exchanges have been literally swamped.

This is in the face of all sorts of advertising on the part of the industry to restrict use, as well as rigid government orders limiting extensions of service. The great problem is to keep the limited number of circuits open for essential calls. There is not enough critical material to supply the demand for new circuits. The industry already has made a valuable contribution to the man-power pool, having reduced its male employees from 121,000 to 97,000 since the beginning of the war. The contribution in critical materials also has been exceptional, copper requirements for 1943 being held to 6,000 tons as against a peak of 92,000 tons before the war.

Among the appeals being made for conservation of telephone service are:

Avoid unnecessary calls to distant or war-busy centers; limit conversations to five minutes; avoid calling between 7 and 10 P.M., when most service men are free to make calls; be brief where shortage of local facilities exists.

The same problems of congestion confront the telegraph industry. Government orders have eliminated greeting messages. The industry is constantly seeking to avoid use of its facilities for nonessential purposes.

Conservation of Water

FREE as it is generally regarded, water is a scarce as well as vital war material, especially in areas where there have been gigantic war industry developments. There the water supplies have been taxed to the maximum and in many instances real and serious shortages have been threatened. The manufacture of steel, gunpowder, planes, tanks, and other military equipment has increased water use far beyond all prewar levels. Since water supplies are dependent upon rainfall, there is danger in depleting sources, especially in those areas where the demand has outgrown the supply system. In addition, fuel and important chemicals are used in large quantities by water utilities. Therefore it is essential that water be used sparingly, so there will be a sufficient supply in the



G"FREE as it is generally regarded, water is a scarce as well as vital war material, especially in areas where there have been gigantic war industry developments. There the water supplies have been taxed to the maximum and in many instances real and serious shortages have been threatened. The manufacture of steel, gunpowder, planes, tanks, and other military equipment has increased water use far beyond all prewar levels."

NATION-WIDE CONSERVATION AND THE UTILITIES

event of unforeseen contingencies, and so critical materials can be conserved.

The drive for saving water will be conducted mainly in the 1,077 cities in the nation with more than 10,000 population, totaling 62,730,000 and constituting nearly 50 per cent of the entire population of the nation.

Savings campaigns generally will be directed toward repair of leaky faucets and other fixtures; careful use of water for lawns and gardens; restricted use of water for all home purposes. Stress will be placed upon the fact that the critical materials and man power are not available to expand existing systems.

Conservation of Transportation

To a greater or lesser extent, each of the industries so far discussed is involved in the drive to save transportation. Tightening up the belts of those industries relieves transportation strain on railroads, busses, commercial and private automobiles, and consequently conserves all of the equipment which has made it possible for the nation to keep mobile despite rigid restrictions and shortages.

Railroads are carrying a big portion of the huge transportation load, and the Office of Defense Transportation has been engaged for nearly two years in advertising appeals to avoid unnecessary pleasure travel. A recent ODT survey disclosed that 29,000,000 persons, or 25 per cent of the monthly passenger load, are traveling for pleasure on the nation's railroads. Each holiday brings on a new rush of citizens flush with war-job pay who want to make long and unnecessary trips. This costs man power and vitally

needed equipment which cannot be replaced. Only recently ODT warned that the United States is headed for a crisis in railroad man power unless drastic remedies are undertaken by management and labor with assistance of government.

The American Association of Railroads has done a remarkable job in cooperation with ODT in eliminating waste in freight transportation. Freight loadings have far outdistanced anything known in the past, yet the 100,000 shippers have been taught how to ship to eliminate waste. Freight is moving faster, despite a man-power shortage.

The rail freight conservation program embraces the following: Speed up turnaround on cars; encourage prompt loading and unloading; foster the closest scrutiny in cleaning out cars; observe greater care in bracing and loading of cars to minimize damage to lading; expedite repair of cars; eliminate circuitry in routing and all unnecessary haulage; eliminate unnecessary switching; promote heavier loading of all cars; increase efficiency in freight handling.

Government agencies also have placed drastic restrictions on travel by private automobiles and busses. Conservation of private automobiles is necessary because new automobiles are not being produced. It is estimated there are only 100,000 new 1942 automobiles still available, as against 140,000 monthly going into the wreckage yards, where they are used to rebuild others on the verge of being discarded. Also, private automobiles are vitally essential as a transportation medium. It would have been impossible to carry the nation's passenger load with rail-

PUBLIC UTILITIES FORTNIGHTLY

roads, busses, and local transit systems.

Conservation of automobiles saves tires, gasoline, and parts, which are particularly scarce, as well as manpower needed to make repairs.

Conclusion

To integrate this broad conservation program so that every benefit can be gained, media to be used will be newspapers, radio, magazines, graphics, motion pictures, trade journals, house organs, collateral industry advertising, retail stores, window displays, and tie-in advertising. Bill stuff-

fers and direct contact with consumers will be utilized to reach the public with these messages on conservation.

Conservation has the whole-hearted support of industry, once the need is clear. Many millions of dollars have been spent in the past year by private industry through advertising to ask the public to refrain from traveling, to spare overtaxed communications systems, to save coal and petroleum products, and to guard against unnecessary waste of gas, electricity, and water. This support should continue on an accelerated basis to tie in with the current government 7-point program.



Transport Lack Cramps Shanghai

As a result of the Japanese occupation, transportation has become one of the most serious problems in Shanghai, one of the world's great cities.

Rickshaw rides which formerly cost 10 Chinese cents now cost 2 Shanghai dollars. Chinese-made bicycles costing 50 Chinese dollars before Pearl Harbor now sell for 2,000 Chinese dollars. A foreign-made bicycle sells for as much as a good used automobile was worth fifteen months ago.

According to Paul Feng, former city editor of *The China Press* in Shanghai, who recently arrived in Free China, an American schoolteacher sold her 2-year-old bicycle for 6,000 Central Reserve Bank dollar notes—thirty times the price she paid for it in 1940.

Rickshaws cost as much as did automobiles two years ago, and only the rich can afford them. Some rich Chinese have built "pedicabs"—bicycles with sidecars, formerly used for delivery purposes. A coat of paint and a new body making riding more comfortable have made these prize objects.



Wire and Wireless Communication

SHORTLY after Congress reconvened in the nation's capital following its summer recess, the special 5-man committee investigating the FCC, headed by Representative Cox, Democrat of Georgia, was expected to make an "interim report" and possibly recommend revision of the Communications Act with respect to revelations brought out by the committee hearings.

The interim report was expected to traverse the three main phases of the committee's investigation so far: (1) alleged unnecessary and incompetent "war activities" of the FCC, contrary to the wishes of the joint chiefs of staff of the Army and Navy; (2) alleged abuse of draft deferment for untrained and replaceable employees; (3) alleged usurpation of virtual censorship powers by the FCC, especially with respect to foreign language broadcasts.

Among other recommendations likely to be incorporated in the interim report were the following:

A proposal that Chairman Fly of the FCC be cited for "contempt of Congress" because of his refusal to produce records, and general failure to cooperate with the committee's investigation.

A proposal that the committee be given additional funds to supplement the \$60,000 approved early this year by the House to carry on the special investigating committee's work.

A proposal that the FCC radio engineering division be transferred to con-

trol of the Army Signal Corps and that the Federal Broadcast Intelligence Service be abolished.

A proposal that the Communications Act be rewritten so as to spell out authority of the FCC with respect to such policy matters as newspaper ownership of radio stations, chain broadcasting, licensing procedure, generally following the lines of the Wheeler-White bill now pending before the Senate Interstate Commerce Committee.

IT will be recalled that Chairman Wheeler of the Senate Interstate Commerce Committee promised before the summer recess that hearings would be held on the Wheeler-White bill when Congress reconvened, such hearings to continue "uninterruptedly" until definite conclusions are reached. Thus it seems likely that the FCC will be getting special attention on both sides of the Capitol this fall.

There is a possibility that Chairman Fly, who has bitterly criticized what he called the unfair and onesided character of the Cox committee investigation, may seek to use the Senate committee forum as a means to offset charges against the FCC which have been developed in the Cox hearings.

Misrepresentation of the qualifications of employees of the Federal Communications Commission for whom deferment from the draft was sought on the ground of their alleged "irreplaceability" was

PUBLIC UTILITIES FORTNIGHTLY

charged at hearings before the special House investigating committee. On the basis of records from the commission's files, testimony was presented showing that deferments had been urged repeatedly by the commission for young single men, without dependents, having no previous records of professional experience to justify claims of high technical achievement. In some cases adverse reports by examiners and inspectors of the commission were cited.

The hearing on August 30th, at which Representative Louis E. Miller, Republican of Missouri, presided in the absence of Representative Cox, proceeded under a running fire of interruptions from Charles R. Denny, general counsel for the FCC, and E. K. Jett, its chief engineer. Both sought to "interpret" or "explain" the letters and names from the commission's files introduced by the committee's attorneys and investigators.

Toward the close of the session FCC Chairman Fly asserted in a press release that "in another bid for headlines, counsel for the Cox committee at the hearing today deliberately distorted the true picture with respect to the commission's handling of draft deferments."

* * * *

THE question of whether hotels in the District of Columbia were within their rights in making extra charges to their guests for long-distance telephone calls was considered on September 9th by the Federal Communications Commission and the public utilities commission.

At the same hearing the commissions sought to determine which body had jurisdiction over the regulation of inter-zone message unit charges for suburban telephone service furnished by the Chesapeake & Potomac Telephone Company. Jurisdiction is claimed by the FCC on the basis they constitute a form of long-distance call. This opinion was concurred in by Gregory Hankin, minority member of the District commission, while Commissioner Charles W. Kutz and Chairman James Flanagan agreed with the National Association of Railroad and

Utilities Commissioners that the utility commission was the proper body to exercise control.

In the telephone dispute, T. Brooke Price, counsel for the American Telephone and Telegraph Company, testified the surcharge on long-distance telephone calls made by hotels was not the responsibility of the telephone company. He questioned authority of the commissions to interfere in the policy of the hotels, but added if the company was instructed to discontinue service to customers where a surcharge was made, the order would be complied with without referring to the jurisdictional question.

He said there was no difference in the contracts let to hotels other than the pre-war ruling of the Postmaster General that where a hotel offers service directly to the public, such as pay booths, no surcharge is allowed and also when a hotel guest leaves without paying his bill, the hotel company may remit the charges.

Attorney Joseph McCarragh, counsel for the hotel association, testified under privilege because the association had not been made a party to the proceedings. He said no surcharges on long-distance calls had been made but extra charges had been added as hotel accommodation charges and not as a part of the telephone bill. This was explained by saying follow-ups on long-distance calls, withholding undesired calls, and other extra services constituted a direct hotel service and should be charged for.

* * * *

NEW York Telephone Company will reduce by \$2,200,000 annually the rates for telephone service within New York state, the New York Public Service Commission announced recently. In addition, changes in intrastate toll rates of independent companies rendering long-distance service by connection with the New York Telephone Company will result in reductions of approximately \$128,000 a year.

Half the reductions are to be made in intrastate toll rates and will eliminate a large portion of the difference now existing in the rates between intrastate and

WIRE AND WIRELESS COMMUNICATION

interstate toll messages for the same distance. The changes include elimination of report charges, reduction in overtime charges (that is, on conversations after the first 3-minute period) to one-fourth of the initial period rate, and a reduction in the basic toll schedule for calls of more than 122 miles, so that the difference between intrastate and interstate tolls will not exceed 10 cents in any case and in many instances will be reduced to 5 cents from 10 cents. The reduction also will be applicable to charges for interexchange and intraexchange mileage and in the rates of extension, tie, private, and leased lines in New York city.

The reductions have been made possible by a basic revision in relationship between the New York Telephone Company and the Long Lines Department of the American Telephone and Telegraph Company under new agreements entered into earlier this year. Under these agreements, the charges of the AT&T to companies in the Bell system will be changed from the "board-to-board" to the "station-to-station" method.

New tariffs have been filed by the New York Telephone Company making the reductions in intrastate toll effective October 1st. Additional revisions covering reductions in mileage rates for extension, tie, private, and leased lines will be filed, to become effective October 15th.

Commenting on the reduction in telephone charges, James W. Hubbell, president of the New York Telephone Company, said:

The company does not agree that the reductions which the public service commission insists must be made are warranted. In the opinion of the company its earnings, even though presently aided by an unusual volume of business, are not sufficient to justify any downward rate adjustment.

Although the company can ill afford the revenue loss, in order to avoid diverting any part of its effort or technical staff from its war-time telephone service job, it has decided not to oppose the changes and to comply with the demand made upon it by the commission.

* * * *

A REDUCTION in long-distance telephone rates on calls made within

South Carolina was announced recently by James W. Wolfe, chairman of the state public service commission, the state's regulatory body for utilities.

The reduction will effect a total saving estimated at \$44,000 a year for users of the long lines within the boundaries of South Carolina. The new rates become effective October 1st. The action of the commission followed last winter's cut in interstate tolls by the Federal Communications Commission, effecting a saving of approximately \$275,000 annually in South Carolina.

* * * *

ASSERTING the company's war effort would be retarded, the Southern Bell Telephone & Telegraph Company this month appeared for dismissal of a rule *nisi* ordering it to show cause why long-distance rates in the state of Georgia should not be lopped to the level of interstate tolls.

In addition, Company Counsel John Goree and Marion Smith told the Georgia Public Service Commission that any further rate reduction would be confiscatory, in violation of the Federal Constitution. They asserted the company now charged in Georgia the lowest local service rates of any of the other states served by Southern Bell; namely, the Carolinas, Alabama, Florida, Louisiana, Tennessee, Mississippi, and Kentucky.

* * * *

THE Pennsylvania Public Utility Commission has dropped a proposal for a general rate reduction for the 1,155,000 subscribers of the Bell Telephone Company of Pennsylvania, but has directed a \$586,600 decrease in leased wire, long-distance overtime, and interstate rates.

Thomas C. Buchanan, lone Democratic member of the commission, voted against his Republican colleagues' decision not to press for a general rate reduction.

The rate decreases parallel similar action taken by the Federal Communications Commission against the American Telephone and Telegraph Company, Bell's parent concern.

PUBLIC UTILITIES FORTNIGHTLY

Bell already had filed a tariff decreasing by \$222,400 annually rates for long-distance calls over three minutes. The state utility commission requested additional tariffs reducing leased wire schedules by \$200,100 and interstate service by \$164,100, making all three reductions retroactive to last March 1st.

The action was unusual in that no formal order was issued. The commission instituted no formal rate case against Bell, but carried on extensive informal negotiations.

* * * *

THE Pennsylvania State Superior Court, in an opinion written by Judge William E. Hirt, released September 9th, held that the Pennsylvania Telephone Corporation (independent) was within its rights in installing a device which would automatically cut off calls of longer than eight minutes. It had been installed in 1939 in the Johnstown area. The Pennsylvania commission, upon complaint, had ordered the removal of the device on grounds that the company could not limit its service. The court's ruling (Judge Rhodes dissenting) reversed the commission, holding where the general demands of service conditions on the whole warranted such practices, the company had a right to adopt them.

* * * *

CONTRARY to a long-established policy of not constructing rural lines where these parallel those of a grounded wire telephone service unless a waiver is secured from the latter, the Rural Electrification Administration, in the person of the Cornhusker Power District of Platte county, Nebraska, recently continued to urge the granting of authority to build a mile of line in Boone county where such conditions exist and where no waiver has been secured.

This policy was adopted some years ago after the state railway commission had taken the position that where the power district comes into territory occupied by a telephone company and builds lines that cause poor telephone service,

the cost of getting rid of undesirable conditions must be paid by the intruder into the field. REA has just as consistently refused to pay such costs. In the application being heard the pole line would be built off the highway, which introduced a new factor. In support, REA sent two expert engineers, who testified before the state railway commission that the best types of construction were used, but that it was inevitable that where a power line paralleled a grounded telephone line—which is one that uses one wire only to carry the current and uses the ground to complete the circuit—noises would be set up over the telephone wire.

The remedy, experts say, is for the telephone company to substitute a 2-wire system, and to finance the costs of construction and of maintenance to seek higher rates for the better service. Grounded construction is outmoded, and all the larger telephone companies have abandoned it and reconstruct where they buy grounded lines, they said.

* * * *

A TRIPARTITE panel will meet in Washington within the next few weeks to adjust the contract dispute between the Chesapeake & Potomac Telephone Company and 6,600 of its District employees, the regional War Labor Board in Philadelphia, which certified the disagreement, announced early this month. The panel will include one representative each of the public, labor, and industry.

The Federation of Telephone Employees of the District, a member of the independent National Federation of Telephone Workers' Union, represents the workers, and is demanding union maintenance for plant, accounting, and commercial employees. It also asked for a closed shop for traffic employees, arbitration of grievances, seniority rights, and hiring privileges.

Union officials seek wage adjustments retroactive to April 1st, expiration date of the previous agreement, while they desire the system whereby workers reach top pay brackets in twelve to fifteen years revised to eight to ten years.

Financial News and Comment

By OWEN ELY

Engineers Public Service

(Fifteenth in a series of articles on holding companies.)

ENGINEERS Public Service, with 1942 system assets of nearly \$400,000,000, formerly controlled eight separate groups of operating properties in twelve states, but the system is now shrinking. The small Key West property in Florida has been sold. The equity interest in Puget Sound Power & Light (Washington) has now been reduced to 3.03 per cent, and the small Baton Rouge, Louisiana properties have been disposed of. Remaining properties are as follows in the order of size (millions of dollars):

Revenues

Virginia Electric & Power (Va. & N.C.)	\$29.9
Gulf States Utilities (La. & Tex.)	12.6
El Paso Electric (Tex. & N.M.)	4.6
Savannah Electric & Power (Ga.)	3.7
Western Public Service (Wyo.) .....	.6
Missouri P. S.	
Total	\$51.4

Engineers Public Service also owns 61,357 shares of El Paso Natural Gas



(which amount, being only about 8½ per cent of the outstanding stock, makes that company a nonsubsidiary). The SEC has recently approved a proposal by Engineers to invite tenders from preferred stockholders to exchange their holdings for El Paso, plus cash (as described in the September 2nd issue, page 300).

The SEC about a year ago ordered Engineers to divest itself of all remaining investments except that in Virginia Electric & Power, and it was also required to dispose of the gas and transportation operations of that subsidiary. Presumably the SEC will grant another year's time in which to complete the program of divestment.

SUBSIDIARY capitalization consists of \$90,085,000 funded debt and \$33,173,848 preferred stock (excluding Puget Sound). The parent company has no funded debt, capitalization being as follows:

\$5 preferred (no par)	156,001 shares
\$5.50 preferred (no par) ..	192,046 shares
\$6 preferred (no par)	69,968 shares
Common (\$1 par)	1,909,968 shares



Consol. System Earnings Coverage

	Fixed Charges & Pfd.	Amount Per Share	Parent Company Earned per Share	Approx. Range \$5 Pfd.	Common
Dividend		Common	Pfd.	Com.	
12 mos. ended 7/31/42	\$1.20	\$1.45	\$5.67	\$.06	86-54*
Calendar year 1942	1.13	.96			8-2½*
1941	1.17	1.27	7.61	.48	66-40
1940	1.22	1.61	8.02	.58	3-1½
1939	1.20	1.55	8.17	.61	80-65
1938	1.11	.81	6.90	.34	7-2½
1937	1.10	.76	6.38	.22	83-63
1936	1.04	.33	5.90	.11	80-63

*January 1-September 13, 1943.

PUBLIC UTILITIES FORTNIGHTLY

The earnings and price record in recent years is shown in the table on page 431.

In 1942 Engineers' equity in the earnings of subsidiaries, and dividends received, were as follows in thousands of dollars (omitting Puget Sound):

	<i>Equity</i>	<i>Dividend</i>
Virginia Elec. & Power	\$2,575	\$1,473
Gulf States Util.	1,118	840
El Paso Elec. & Sub. ..	325	169
Savannah Elec. & Power	118	..
Western Pub. Serv. Group	60	30
Key West Electric	37	..
Baton Rouge Bus	48	35
Total	\$4,282	\$2,547

Preferred dividends and interest payments aggregating \$138,000 were also received from system companies.

Engineers' sharp gain in earnings this year (\$1.45 on the common for the twelve months ended July compared with \$1.04 in the previous period) appears due to the substantial increase in revenues and close control of expenses. Current statements still include Puget Sound (though this is excluded from net earnings by a special deduction) and it is difficult to disentangle Puget's figures from the balance of the system. However, the gain in net is largely traceable to Virginia Electric & Power, which is making an excellent showing owing to its location in relation to war industries, shipbuilding, etc. The company's important bus and trolley business has shown large gains, revenues more than doubling as compared with the prewar period.

Engineers' \$5 preferred is currently around 85, yielding 5.90 per cent, and the common at 7½, which is about 5.4 times consolidated share earnings. *Standard & Poor's* recently estimated the liquidating value of the preferred stock at 149 and the common at 11.

United Corporation to Submit Plan

PRESIDENT William M. Hickey of United Corporation has announced in a special letter to stockholders that the

management is taking steps to comply with a recent SEC order calling for simplification and recapitalization under the Utility Act. The commission's opinion left the way open for the company (by divesting itself of sufficient holdings in its subsidiaries) to transform itself from a holding company into an investment company and register under the Investment Company Act of 1940. Mr. Hickey's letter stated that

... after careful consideration, directors have concluded not to seek a review of the commission's decision. Although there are findings and inferences in the SEC's opinion which the management holds to be unjustified, the board does not believe that litigation of the issues at this time would be in the best interests of the corporation and its stockholders. What is needed, in the judgment of the board, is a prompt and conclusive settlement, on a fair basis, of the corporation's future status under which the corporation will be permitted to function for the benefit of its stockholders.... Since the disposition of a major part of the securities of the corporation's statutory subsidiaries appears in all events to be necessary, it is probable that a first step of compliance will be a proposal for the exchange of some of those securities for outstanding shares of the corporation's preference stock.

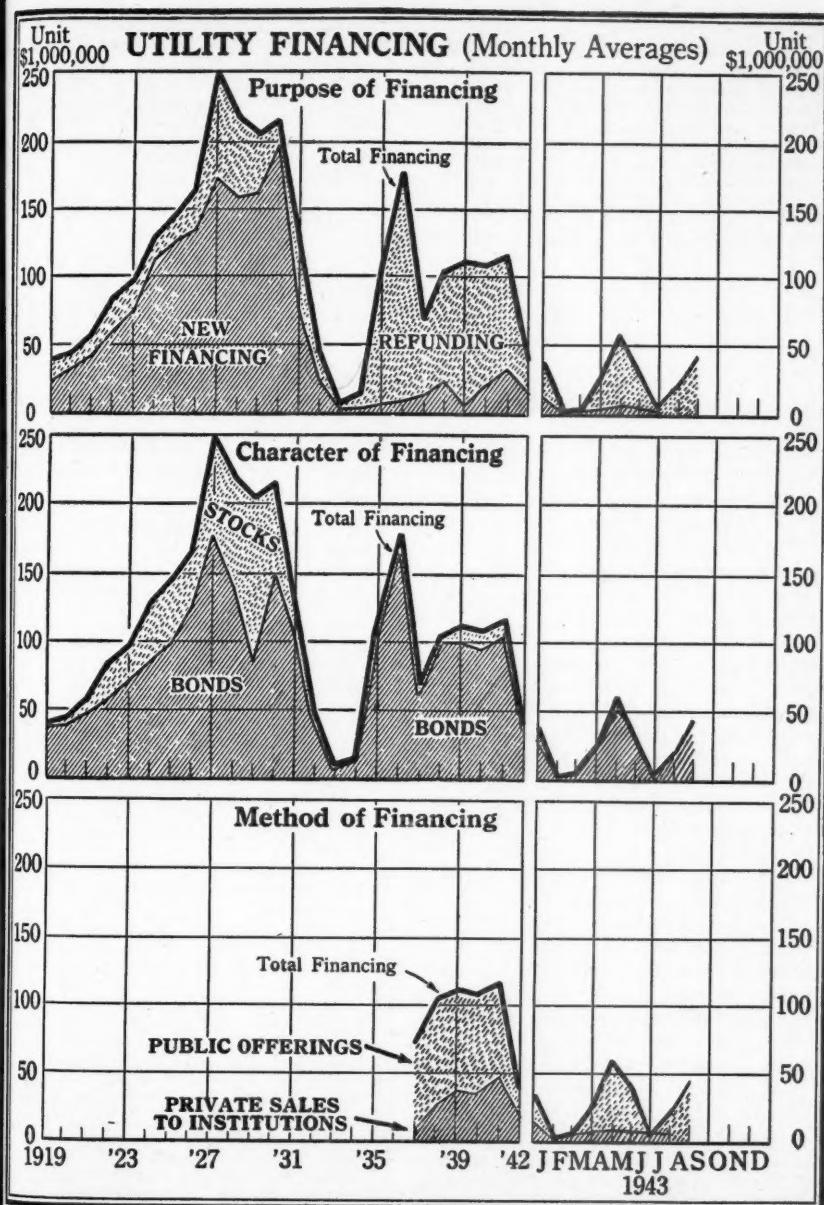
There have been several Wall Street rumors regarding the character of the "package" offer to be made to preferred stockholders, including the one mentioned in the description of United Corporation in this department (previous issue, page 365), but Mr. Hickey did not reveal the company's exact plan, which may not be ready for a few weeks, it is reported.

According to *The New York Times* the "package" might include stocks received in the breakup of United Gas Improvement, such as Philadelphia Electric and Public Service of New Jersey.

In our previous description of United Corporation four "subsidiaries" were listed—Public Service of New Jersey, Philadelphia Electric, United Gas Improvement, and Columbia Gas & Electric.

Niagara Hudson Power should also have been included as a subsidiary instead of among "other utilities."

FINANCIAL NEWS AND COMMENT



PUBLIC UTILITIES FORTNIGHTLY

	<i>Actual Year 1940</i>	<i>Actual Year 1942</i>	<i>Est. Budget Year 1943</i>	<i>Est. Second Year After War (1946)</i>
Revenues	45.4	52.4	55.4	61.0
Operating expenses	17.8	19.2	21.0	22.5
Deprec. and amort.	5.2	7.5	6.8	7.0
Taxes*	3.0	3.1	3.3	3.4
Interest, etc.	4.8	4.7	4.7	4.0
Net income*	14.7	18.0	19.6	23.9
Preferred dividends	3.4	3.4	3.4	3.4
Balance*	11.2	14.6	16.2	20.5

*Excluding Federal income and excess profits taxes.



Consumers Power Estimates Postwar Earnings Increase

COMMONWEALTH & Southern recently filed with the SEC an interesting document containing estimates (with supporting statements) of revenues and expenses for the second year after the war by ten system subsidiary companies.

An interesting feature of the exhibit is the statement by Vice President Arthur of Consumers Power that "due to the very nature of the business, reasonably accurate forecasting is essential, and it has been the practice of the management of the company to forecast load conditions two to three years in advance, and to make, each fall, an estimate of the earning and expenses for the next ensuing calendar year." In the five years 1938-42 the deviation in the estimates as compared with actual revenues ranged from 3.4 per cent too low, to 6.8 per cent too high; while the estimates of operating expenses were too high in each case by .2 to 12.1 per cent.

The estimates for 1946 were based on present rate schedules (since it is believed there will be only minor and voluntary changes), and also excludes the likelihood of any runaway inflation. "The government controls now being imposed upon wages and prices and the fact that many men now in the armed services will have by 1946 returned to their usual employment, thus relieving the existing labor shortage, leads us to believe that this is the most logical basis," it was said.

Selected figures for Consumers Power are shown above (millions of dollars).

Federal Power Commission Statistics

REFFERRING to the article in this department on "Differing Statistics of Net Income" (June 24th issue, page 830), we quote as follows from a letter received from the Federal Power Commission:

... the basis of compilation of the commission's statistics on income is published in the December, 1942, bulletin ... It is believed that the principal cause for the differences in the ratios of "net to gross" is that of FPC ratio, and also apparently that of EEI, is based on electric revenues from sales to ultimate consumers, while the other two ratios appear to be based on total operating revenues, including electric revenues from sales to other utilities as well as other utility revenues. Total 1942 electric operating revenues as shown in the enclosed bulletin were \$2,762,857,000. After an approximate amount based on 1942 data, for other utility revenues is added to this figure, the ratio of "net to gross" becomes approximately 15 per cent.

This ratio does not appear to be inconsistent with that of the *Electrical World*, particularly in view of the probability suggested in your article that the *Electrical World* figure does not reflect tax accrual adjustments made during the last quarter of the year.

New indexes and separators were ordered for the "Electric Power Statistics" several months ago but have not as yet been received. It is hoped, however, that the inadequate indexing of the service to which you have reference will be corrected in the near future.

The difference between the figures on installed capacity as published in the "Production of Electric Energy" section and in the "Power Requirements and Supply" section is based upon differences in coverage resulting from the different purposes of the

FINANCIAL NEWS AND COMMENT

two compilations. The differences in coverage are as follows:

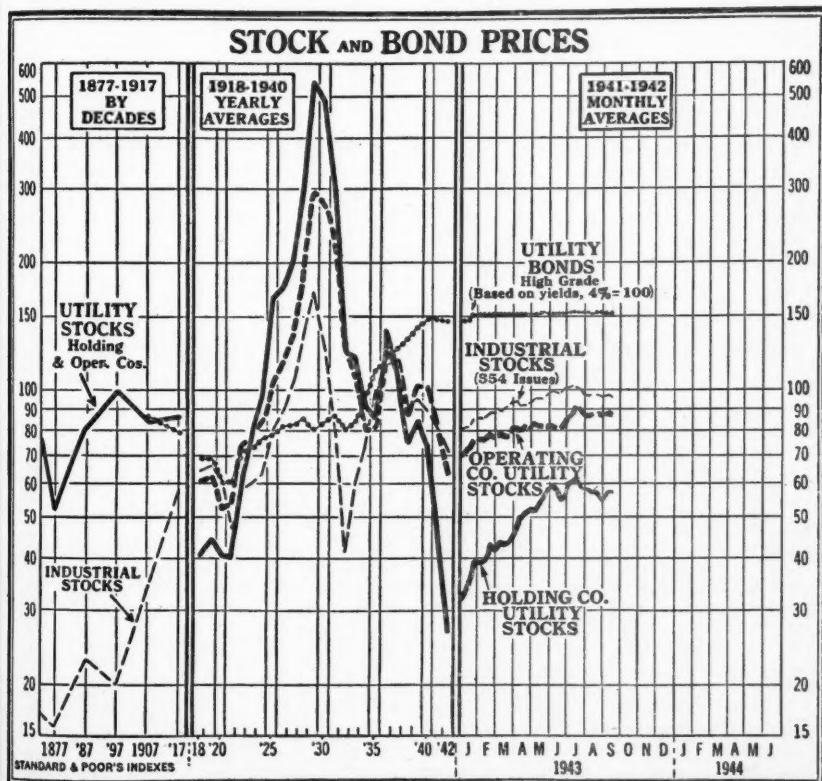
The preliminary 1942 year-ending installed capacity figure given February 18th in publication S-28, "Preliminary Report on Production of Electric Energy and Consumption of Fuel by Electric Utilities in the United States—1942," as 46,954,862 kilowatts is a comprehensive figure including the capacity of both publicly and privately owned electric utilities, generating stations of electric railways and railroads, Federal power projects, state, and other governmental power projects, co-operatives, and publicly owned noncentral stations. Stations of certain industrial organizations having a quasi utility status are included, as well as an allocated portion of other industrial capacity which supplies part of its generation to utility systems.

Class I systems with installed capacity of 41,150,191 kilowatts at the end of 1942, as shown in the report on electric power requirements and supply, are, in general, those systems having "net energy for system," i.e.,

generation, plus receipts less deliveries, exceeding 50,000,000 kilowatt hours per year. Railways and railroads are excluded from this series as a class. Most of the noncentral station group is excluded because of size or character of operations. Another important class, the wholesale generating companies, have their installed capacities in the comprehensive figure above. However, these companies, because of the nature of their operations, are included in the Class I series as net firm purchases by the Class I systems rather than installed capacity. The same is also true of purchases of capacity from industrials. The larger quasi utilities are included in both series.

The "Production of Electric Energy" series has been compiled largely for statistical purposes over the entire period since 1920.

The "Power Requirements and Supply" series is based upon data compiled only since 1940 for the purpose of studies of adequacy of power supply in individual power supply areas. . . .



PUBLIC UTILITIES FORTNIGHTLY

INTERIM EARNINGS REPORTS

	End of Period	12-month Period			3-month Period		
		Last	Prev.	Inc. %	Last	Prev.	Inc. %
<i>Electric-gas Holding Companies</i>							
American Gas & Elec. Consol.	June	\$2.18	\$2.47	D12	.54	.45	20
Amer. Power & Lt. (pfld.) Consol.	May	8.05	4.14	95	..	..	..
Parent Co.	Dec.	3.18	3.98	D20	..	..	..
American Water Works Consol.	June	.75	1.10	D32	..	..	..
Parent Co.	June	.17	.30	D43	..	..	..
Columbia G. & E. (1st pfld.) Consol.	June	12.99	5.62	132	1.86	2.57	D27
Com. & Southern (pfld.) Consol.	June	9.01	7.46	21	2.20	1.47	50
Elec. Bond & Sh. (pfld.) Parent Co.	Mar.	4.22	6.06	D30	1.00	1.02	D2
Elec. Pr. & Lt. (1st pfld.) Consol.	May	11.29	10.62	6	..	..	..
Parent Co.	May	1.97	1.66	18	..	..	..
Eng. Pub. Service (common) Consol.	July	1.45	1.04	41	..	..	..
Parent Co.	June	.19	.36	D47	..	..	..
Federal Lt. & Trac. Consol.	June	1.79	1.48	21	.41	.31	32
L. I. Lighting (pfld.) Parent Co.	June	4.87	3.50	39	..	..	..
Middle West Corp. Consol.	June	.59(a)	.48(a)	23	.22	.20	10
Nat'l. Pr. & Light Consol.	June	.97	.64	51	.21	.09	133
Parent Co.	June	.04	.10	D60	..	..	..
Niagara Hudson Pr. Consol.	June	.33	.40	D18	..	..	..
Parent Co.	Dec.	.12	.03	300	..	..	..
North Amer. Co. Consol.	June	1.72	1.88	D9	.40	.40	..
Parent Co.	June	1.18	1.57	D25	..	..	..
Nor. States Pwr. (Del.) (pfld.) Consol.	June	6.42	7.10	D9	..	..	..
Ogden Corp. Parent Co.	June	.09(a)	.03(a)	200	..	..	..
Pub. Serv. Corp. of N. J. Consol.	June	1.25	1.23	1	..	..	..
Std. Gas & Elec. (pr. pfld.) Consol.	June	12.92	9.00	44	2.61	2.03	28
Parent Co.	June	2.83	2.13	32	.63	.49	29
United Gas Improvement Parent Co.	June	.54	.57	D5	..	..	..
Consol.	June	.57	.60	D5	.36	.31	16
United Lt. & Pr. (pfld.) Consol.	June	10.41(b)	6.46(b)	61	..	..	..
<i>Electric-gas Operating Companies</i>							
Boston Edison	June	2.26	2.04	10	.55	.40	37
Commonwealth Edison Consol.	June	1.83	1.56	17	.87	.78	11
Conn. Lt. & Power	July	2.62	2.67	D2	..	..	..
Cons. Edison N. Y. Consol.	June	1.75	1.70	3	.27	.17	58
Parent Co.	June	1.92	1.71	12	.45	.36	25
Cons. Gas of Balto. Consol.	June	4.02	3.58	12	.87	.91	D4
Detroit Edison Consol.	July	1.36	1.51	D10	..	..	..
Houston Lighting & Power	July	5.87	4.27	38	..	..	..
Indianapolis P. & L. Consol.	June	2.17	2.03	7	.36	.35	3
Pacific Gas & Elec. Consol.	June	2.26	2.08	9	..	..	..
Public Service of Indiana	July	1.96	1.84	7	..	..	..
San Diego Gas & Elec.	June	.94	.92	2	..	..	..
Southern California Edison	June	1.46	2.02	D27	.30	.34	D12
<i>Gas Companies</i>							
Amer. Lt. & Traction Consol.	June	1.83	1.81	1	..	..	..
Brooklyn Union Gas	June	1.92	1.88	2	..	..	..
El Paso Natural Gas Consol.	June	3.29	3.10	6	..	..	..
Lone Star Gas Consol.	June	.70	1.03	D33	..	..	..
Oklahoma Natural Gas	July	2.87	3.75	D25	..	..	..
Pacific Lighting Consol.	June	3.12	3.40	D8	..	..	..
Peoples Gas Light & Coke Consol.	June	6.46	5.74	12	1.41	1.40	1
Southern Natural Gas Consol.	June	1.85	1.83	1	..	..	..
United Gas Corp. (1st pfld.) Consol.	May	17.49	17.04	3	5.00	4.82	4
Parent Co.	May	17.30	12.62	37	..	..	..
<i>Telephone and Telegraph Companies</i>							
American Tel. & Tel. Consol.	May	9.15	9.54	D4	2.35	2.18	8
Parent Co.	June	9.67	9.40	D8	2.22	2.21	..
General Telephone Consol.	June	2.18	2.42	D10	..	..	..

D—Deficit or decrease. (a) Six months ended June 30th. (b) Estimate based on report of United Light & Railways Company.



What Others Think

Summary of NARUC Depreciation Report

ONE of the most eagerly awaited committee reports to be introduced at the recent Chicago convention of the National Association of Railroad and Utilities Commissioners was the report of the Committee on Depreciation. This committee, under the chairmanship of Nelson Lee Smith, former chairman of the New Hampshire commission and now chairman of the Board of Investigation and Research (a Federal agency), has been in various stages of preparation for more than two years.

The committee itself, originally created in 1937 and reconstituted as a standing committee in 1939, made two interim reports in 1940 and 1941 and a brief progress report in 1942. During this period the committee functioned continuously with but one change in membership, and has annually advised the board of the NARUC that it was at work on a comprehensive report on the entire subject of depreciation of public utility regulation.

That report was finally submitted at the Chicago meeting, which began on September 14th.

Naturally, such a monumental task has aroused widespread interest. At the St. Louis convention in 1942, there was even some impatience expressed by a former Pennsylvania commissioner, but the scope of the work as finally reported and the nature of the subject matter would seem to justify to the fullest extent the deliberate action of the committee.

Furthermore, the work of preparing the report was not limited to those numbered within the membership of the committee, which included, in addition to Chairman Smith, the following members: Berry (Pennsylvania), Colbert (Wisconsin), Davis (Georgia), Flagg

(New Jersey), Greene (Florida), McNamara (Connecticut), Merrill (Utah) (both McNamara and Merrill are now with WPB), Norfleet (Federal Communications Commission), Purcell (Maryland), Smith (Federal Power Commission).

Other government assistance was secured from the staff of the Bonneville Administrator, Bureau of Internal Revenue, FCC, ICC, New York Public Service Commission, New Jersey Board of Public Utility Commissioners, the SEC, and the TVA.

FINALLY, the committee recognized the interest of the regulated utilities in the subject and, under the express authorization of the executive committee of the NARUC, has since 1940 maintained cooperative working arrangements with committees representing the gas, electric, telephone, and waterworks associations, as well as the American Institute of Accountants and the National Association of Mutual Savings Banks.

The report itself as submitted is in two parts, one a mimeographed document of approximately 280 pages, and an appendix containing technical exhibits of approximately 215 pages.

More important conclusions and recommendations contained in the report are summarized in 43 propositions which give the reader of the report a convenient, general preview of the report as a whole.

The gist of this summary (for purposes of this brief review) has been, in turn, condensed as follows:

1. "The view that maintenance prevents depreciation is unsound." "Depreciation should not be confused with efficiency." Merely replacing units

PUBLIC UTILITIES FORTNIGHTLY

when their service retirement occurs does not fulfill the requirement of proper depreciation accounting.

2. If the depreciation reserve has been properly determined, "it measures the accrued depreciation."

3. "The depreciation reserve should preferably be shown on the asset side of the balance sheet as a deduction from depreciable plant."

4. The depreciation reserve is an account *contra* to the plant account. "It is not a fund." Assets retained for depreciation purposes are not earmarked and there is no reason why they should be.

5. "Financing of replacements is not the purpose of depreciation accounting." Its purpose is to record as a cost of operation the *pro tanto* cost of property consumed therein, "thus maintaining the integrity of the investment whether or not replacement occurs."

6. "Depreciation should not be based upon fair value or replacement cost." It "should be based upon the cost of depreciable assets." No specific rule is recommended for treating the difference between cost to the accounting utility and original cost.

7. Straight-line method of depreciation is simpler and more popular than "sinking-fund" or other interest methods and is "generally recommended."

8. Statistical data drawn from property experience should be given greater weight in determining depreciation than judgment based principally on observation of the property.

9. Current charges for depreciation should be fixed without modification for excessive or deficient charges in the past. Any necessary costs of the depreciation reserve should be made through surplus or a special section of income account with due consideration for practical difficulties and an alternative solution.

10. Consistency between depreciation for taxation and depreciation for regulation may not be immediately feasible but should be sought to the greatest practicable extent.

It is understood that the full text of this interesting document is to be published and released in printed form by the Washington headquarters of the National Association of Railroad and Utilities Commissioners in the near future.

A Government-controlled News Association?

THE nation's press has been given something really serious to think about in an editorial in *Broadcasting*, weekly news magazine of the radio industry (September 6, 1943). The editorial was prompted by the investigation being conducted by the Cox select committee into the activities of the Federal Communications Commission. Here is the way it starts out:

Is the government building its own super news-gathering organization—a sort of federally operated radio-press association?

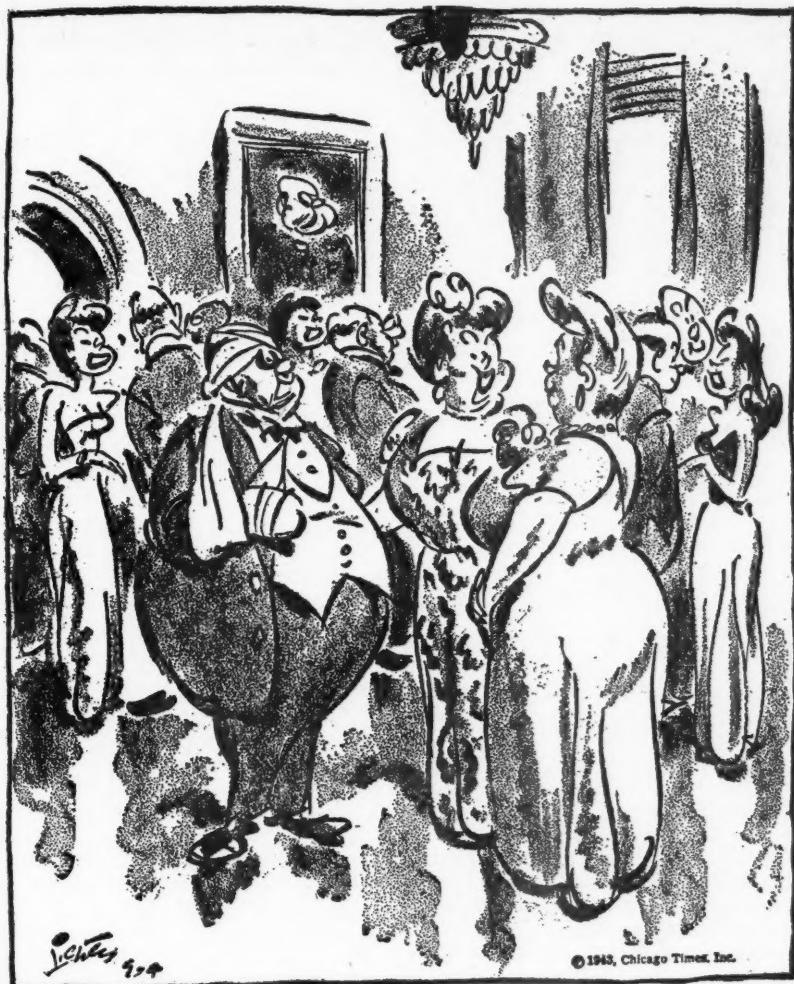
Fantastic as this may seem, some of the keener observers in Washington detect the framework of such an organization in the Foreign Broadcast Intelligence Service of the FCC.

Evidence submitted at the hearings

would indicate that the combined chiefs of staff would like to see the Foreign Broadcast Intelligence Service (FBIS) of the FCC abolished for military reasons. FCC's Radio Intelligence Division would be transferred to the Army. *Broadcasting* points out that FBIS has mushroomed under the guiding genius of FCC Chairman James Lawrence Fly. Its staff includes several hundred analysts, editors, translators, and others, whose assigned task is to monitor foreign broadcasts and analyze or translate them for various governmental agencies—whether they want the service or not. *Broadcasting* goes on:

But that isn't particularly germane to the question of a government press association.

WHAT OTHERS THINK



© The Chicago Times, Inc.

"AND THIS IS MR. TRUFFLE, A GOVERNMENT OFFICIAL, AND VETERAN OF SOME OF THE HEAVY FIGHTING IN WASHINGTON"

A real clue came last week when the House select committee investigating the FCC released a letter from Chairman Fly to the President in connection with draft deferments for the commission. Mr. Fly told the President that FBIS maintains a "minute-to-minute" news service, twenty-four hours a day. One of Washington's most widely held "secrets" is the hostility of the administration to the nation's press. This has been reflected in many ways. From the radio stand-

point it became manifest in the so-called newspaper ownership investigation of the FCC—an investigation still in progress so far as the record goes because the record has never been closed. For nearly three years newspaper applications (except in rare cases) have been thrown into the suspense file pending the outcome of the investigation, and a determination by the FCC whether it is in the public interest for newspapers to own broadcasting stations.

PUBLIC UTILITIES FORTNIGHTLY

BRADCASTING's editorial next observes that, while FCC is debating whether it can lawfully divest newspapers of radio affiliations, it has built up FBIS with a network of leased wires and nation-wide—even world-wide—operation. It continues:

. . . This doesn't conclusively prove that the government's intention is to make FBIS a Federal news organization. But it certainly gives it some rudimentary experience in the field. The United States, of all major nations, doesn't have its own government news organization. England has its semi-official Reuters; France its Havas; Russia has Tass; Germany the notorious DNB; Japan has Domei; and Italy has Stephani.

Broadcasting explains that FCC is a licensing authority under the Communications Act, and is not an operating agency. FBIS, however, is an operating agency which got its authority by de-

fault because until now Congress has just permitted it to grow without hindrance. The editorial went on:

This idea of a government news association may be a bit vague. But the crusade against newspaper ownership, which would deprive one segment of the public the right to engage in free enterprise, certainly isn't. That's why we were glad to see the steering committee of the Newspaper Radio Committee pledge itself the other day for legislation to prevent discrimination against newspaper ownership of stations.

Whatever the intentions of FCC, it would seem that the nation's press is giving a strangely small amount of attention to the tremendous possibilities which might develop from FBIS. *Broadcasting* concludes it is time that station owners, newspapers, and independents alike stop believing in Santa Claus.

—C. A. E.

The Fifth Freedom—Private Enterprise

DR. Nicholas Murray Butler, president of Columbia University and also of the Carnegie Endowment for International Peace, in his recent annual lecture at the Parrish Memorial Art Museum at Southampton, Long Island, declared that freedom of individual enterprise is "the keystone of the arch" on which the four freedoms as defined by President Roosevelt must rest. Pointing out that the President had called for freedom of speech and expression, freedom of worship, freedom from want, and freedom from fear, Dr. Butler asserted that freedom of individual enterprise must be added to these to make the definition of freedom complete. He declared that it was the most important freedom of all. Dr. Butler said:

This fifth freedom is in reality the cornerstone of the foundation upon which the other four freedoms must rest. It recognizes that the individual human body, the individual human intellect, and the individual human soul are fundamental and the moving and guiding forces in any form of true civilization.

The educator declared that no individual

individual should be looked upon as a member of a permanent class or group; that every individual should be free to move about as he preferred, economically, socially, and politically, and that he must be free to make the most of the opportunities offered to him. Dr. Butler continued:

It is to the people of these United States that this modern world may well look for commanding and convincing illustration of this fifth freedom. The Army private of today is the major general of tomorrow. He who begins life as a manual worker or as a clerk may, as we well know, come to wield large influence and authority as an administrator, an organizer of men and industry. This is the secret of true progress. Given the fifth freedom, then the other four freedoms take their place as part of the life of every free man.

ASSERTING that most of a free man's advancement of himself was through coöperation with his fellows, Dr. Butler made a sharp distinction between voluntary and compulsory coöperation. He said:

There is an insurmountable barrier be-

WHAT OTHERS THINK

tween voluntary and compulsory coöperation with one's fellowmen. The latter is inconsistent with the fifth freedom and violates both the principles and the ideals of modern democracy.

Persuasive and convincing argument is one thing, but compulsion whether by threat or force is a very different thing. The free man will eagerly seek the one and will turn back on the other. To put any individual human being in the chains of an organization of this kind closes to him the door of opportunity.

The university head delivered a warning against "selfish and well-organized pressure groups" which he said often attempted to gain advantage under the guise of influencing public opinion. He explained:

The conservative and the liberal represent the two fundamental types of human thinking in respect to human affairs. The conservative would move very slowly, making few, if any, changes in existing institutions and practices. The liberal would be looking forward for ways of making men happier and more comfortable and government more efficient, even at the cost of

changing, sometimes in large degree, the details of the organization and practice of government itself.

When the conservative holds back too long and too hard, the liberal wins in the next election.

When the liberal goes forward too rapidly and without good judgment, the conservative displaces him in public opinion and gets a new chance to express himself.

All these happenings are part of the fifth freedom. They and they alone can establish, maintain, and express democratic principles and accomplish progress. They and they alone can assure that form of progress which means order, justice, and true liberty.

Dr. Butler asserted that this same conception of freedom likewise must furnish guidance in the establishment of "a new world organization to promote economic prosperity and to insure and protect international peace." He declared that the smaller nations must be assured that their safety and independence would be as secure as those of the great nations.

Thawing Capital for Postwar Industry

HERE must be no bottlenecks preventing capital from flowing to every legitimate purpose after the war, Jay N. Whipple, of Chicago, president of the Investment Bankers Association of America, said recently in speaking at the annual convention of the National Association of Securities Commissioners in Cincinnati. "There can be no progress without venture capital," he said. "The jobs which we must have ready for returning servicemen," he added, "depend on industry getting the capital it needs for its postwar readjustment."

The investment bankers' war service has been to devote its professional experience to the Treasury's war bond drives, which the IBA president said was the most direct way during the war for the business to contribute to a sound economy after the war. "An army of new investors has arisen through this financing to back the armies in the field," he said. "This, together with the broad diffusion of income and wealth, has cre-

ated a great number of potential capitalists."

These individual investors, he said, will be the most important source of capital for industry to use in converting its facilities, building new plants, and rehabilitating equipment after the war. This is because the heavy tax burdens on corporations prevent them from plowing back earnings which have been the normal source of a great deal of their capital in the past. High taxes, he said, had also restricted the ability of wealthy individuals to furnish capital in the large amounts that will be needed after the war.

"All the elements of prosperity and national well-being will be present when peace comes," he said. "Their proper integration and control is a challenge to the ingenuity and intelligence of all the people. The answer to this challenge will determine whether or not capitalism and freedom of enterprise, which have built this country, can be preserved, or

PUBLIC UTILITIES FORTNIGHTLY

whether we will turn to Communism, Socialism, or some other 'ism.'"

SPEAKING at the same convention, Emil Schram, president of the New York Stock Exchange, expressed confidence that government will take a realistic view of postwar problems and opportunities and predicted "our economy will flourish as never before." He continued:

I believe that our capital markets are about to enter upon a period of great usefulness. We must see to it that these markets are kept clean as well as efficient. To the extent that their capacity to serve the public may be restricted by defects in the regulatory laws, we will not hesitate to ask for appropriate amendment, justified only by considerations of public welfare.

If our system of free enterprise operates in a healthful atmosphere, the capital markets themselves will have little to worry about. Reasonable regulation will present no problem. On the other hand, these markets will have little excuse for existence, no matter how free and untrammeled they may be, if our enterprise system loses its capacity to serve society.

Mr. Schram said restrictions on the creative genius and productive powers of the American businessman and industrialist are infinitely more dangerous to

the American way of life and much more likely to cause anemic markets than any other type of regulation. Wartime co-operation and mutual respect between government and industry may be borne of necessity, he said, but we must see to it that it lasts over into the peace period. He added:

Business has a chance to sell itself to government. Government should take advantage of the opportunity to sell itself to business. Washington has learned at firsthand the problems of business in undertaking the gigantic production for war.

It is no mere coincidence that the securities markets in the United States and Great Britain are the only such markets in the world operating with anything like a normal degree of freedom. Free markets are an integral part of the democratic system. Markets in the United States and in Great Britain are permitted to reflect the progress of the war; they express from day to day the acutely sensitive appraisal by investors of all factors and developments affecting our economy. There is no censorship of our markets and none is needed.

Mr. Schram said he favored a constructive tax policy that would remove existing deterrents to common stock financing. If private investors do not provide risk capital, the government might do so, leading toward Socialism, he said.

Natural Gas versus Coal in Postwar Era

FEDERAL conservation measures with respect to the use of the nation's gas resources may avoid a serious clash between the natural gas and coal industries for their respective places in the sun during the postwar period. This is the opinion of W. M. Jablonski, writing in *The Journal of Commerce & Commercial of New York*.

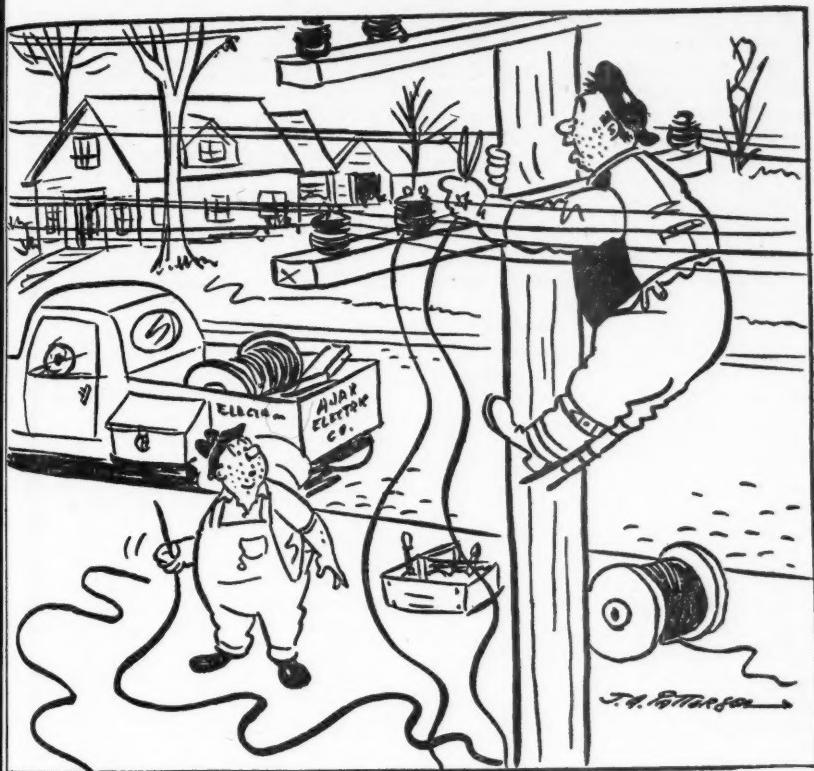
Attention to the problem has been increased by recent Federal Power Commission hearings in connection with applications for construction of long gas pipe lines from the Southwest to various sections of the industrial East. Principal opponents of any more gas pipe-line construction are the railroads, anthracite and bituminous coal indus-

tries, and the United Mine Workers of America. Coal operators stress the importance of "considering the public interest to be served in confining natural gas, with its severely limited reserves, to only the uses to which it is particularly fitted, and of enabling the solid fuel industries with their great reserves to meet the needs for which natural gas might otherwise be used."

Such consideration, they contend, is "consonant with a wise national policy of conservation of natural resources and should be given weight in the determination of public convenience and necessity..."

Mr. Jablonski points out that the coal industry contends the use of natural gas,

WHAT OTHERS THINK



Reprinted by request

"CAN'T FEEL ANYTHING YET? O. K. DON'T TOUCH THE OTHER ONE—IT'S 5,000 VOLTS!"

particularly for industrial and commercial purposes, in an area of almost unlimited reserves of anthracite and bituminous coal which can be utilized for such purposes with equal or greater efficiency and at prices below those charged for natural gas, is like "carrying coal to Newcastle." The operators say this is economically unsound, definitely contrary to the public interest, and destructive of a wise policy of conservation of an irreplaceable natural resource. Mr. Jablonski adds:

Moreover, they point out, according to congressional hearings, the Natural Gas Act was amended in 1942 for the express purpose of enlarging the Federal Power Commission's power to include the consideration of the question of whether a "pro-

posed use of natural gas would not result in displacing a less valuable fuel, creating hardships in an industry already supplying the market, while at the same time rapidly depleting the country's irreplaceable reserves of natural gas."

Most observers note a steady trend during recent years toward government regulation of the country's natural resources and believe that the present depletion of oil reserves is, if anything, accelerating this trend. They recall that already four years ago the National Resources Planning Board recommended the conservation of both oil and natural gas resources, and point out that the passage of the Natural Gas Act was considered by its authors as a first step in dealing with the conservation of the country's "irreplaceable reserves of natural gas."

OFFICIALS of the American Gas Association estimate the known re-

PUBLIC UTILITIES FORTNIGHTLY

serves of natural gas as sufficient for thirty to forty years at the present rate of consumption, but emphasize the possible discovery of new fields. The question of present estimated proven gas reserves appears of paramount importance.

In the case of fuel oil, Mr. Jablonski says, declining reserves of domestic crude oil creating a scarcity are considerably diminishing the possibility that oil again will elbow coal out of the picture as it did on so vast a scale in the 1920's and 1930's. He then quotes Julian E. Tobey, chairman of the Coal Bureau of the Upper Monongahela Valley Association, as follows: "National economics demands that both our petroleum and natural gas be preserved for their special uses. It is basically unsound to burn natural gas or oil for heating or power purposes for which coal is available."

Another spokesman for the coal industry was quoted as saying: "With our oil reserves decreasing, it would seem to be the duty of Congress and the legislatures of the states not only to curtail the use of oil, but to pass legislation curtailing the use of natural gas, except for conversion to gasoline and the essential special purposes where manufactured gas is unavailable." Continuing, Mr. Jablonski said:

That natural gas will be a serious, if not a formidable, postwar competitor, is generally conceded in the coal industry. The

trend toward expansion of the natural gas industry into New England and New York area for industrial as well as domestic heating and power, may partly offset the advantage derived from the oil shortage, it is feared.

Judging from the great strides made by that industry in the period between World War I and World War II in increasing its sales, especially in the South, this well may be true, observers believe. Trade sources estimate that about one-third of their markets in the South was lost to natural gas in the late 20's and 30's. In Atlanta alone, dealers claim to have lost about half their heating business to that fuel.

THE writer estimated that at the present time 81,000,000 tons of coal are being displaced annually by gas used for heating and other purposes. Obviously, therefore, various projected natural gas pipe lines are of great concern to the coal industry.

Opposition to the pipe lines also comes from the officials of some of the gas-producing states, from railroad interests, and labor unions. The latter are fearful of the displacement of coal markets by this relatively laborless fuel, while railroad interests are opposed to their displacement because of their large revenues from coal traffic and ownership of many large coal mines. It was pointed out that state officials are opposed to unrestricted shipping of gas out of their states.

—C. A. E.

The National Association of Personnel Directors Expands

Of interest to the utility field is the recent expansion of the activities of the National Association of Personnel Directors, which recently moved its executive offices from 20 West Jackson boulevard to larger quarters at One North La Salle street, Chicago. This association was founded by a group of middle western personnel directors who saw the need for a national clearing house for personnel administration. Today the membership, headed by T. O.

Armstrong, of Westinghouse Electric & Manufacturing Company, includes a great part of the nation's leading personnel men and women from coast to coast.

The aims and objects of the association (incorporated in Illinois) were announced in a recent statement of that body:

1. Making available to them the opportunity of meeting others engaged in personnel work, with the attendant benefits of acquaintance, exchange of ideas, and mutual experience.

WHAT OTHERS THINK

2. Issuing to members periodicals which serve as a digest of all new material touching in any way on personnel problems. Such materials are secured from publications throughout the nation and from personnel directors engaged in every type of business and industry.

3. Maintaining a research division which works constantly investigating new developments in the personnel field and ascertaining the success with which they meet. Results of this work are available to members at all times.

4. Developing such other services as members shall request or suggest, and engaging

in any activities which the members deem necessary.

As an accommodation to its many hundreds of members who will be in Chicago for the National Safety Congress, the association plans a dinner meeting on October 7th, to be held in the Modinah club, at which both government officials and leaders in industrial personnel may discuss the problems of war-time personnel administration.

—F. X. W.

Is Canadian Price Control Better?

THE Brookings Institution reports that Canada has done a better job of controlling the cost of living than either the United States or Great Britain by dealing "vigorously" with both the fiscal and wage aspects of the inflation problem. The Brookings' study was conducted by Jules Backman, of the faculty of New York University. It shows the increase in the Dominion's living costs during three and one-half years of war has been only 17 per cent, compared with 28 per cent in Great Britain and 26 per cent in the United States.

Canada's fiscal policies, Mr. Backman reported, have emphasized the obtaining of funds from current earnings and includes heavy taxation along with both voluntary and compulsory savings. Wages have been regulated to reduce the upward pressure on costs and a general price ceiling is supplemented by subsidy payments and the allocation and rationing of goods. A general ceiling was

established over wage rates and a bonus was provided to compensate for any rise in the cost of living.

Commenting on the report, *The (Baltimore) Sun* took particular note of the method of financing in Canada and said the Canadian example shows what can be accomplished by means of a coördinated, anti-inflation program, all parts of which have been put into operation simultaneously. The Canadian program, the editorial said, has prevented sharp rises in wages and prices, but it has done so not only because it has established direct wage and price controls, but also because it has included taxes heavy enough to prevent the growth of excess purchasing power. The moral for the United States, the editorial concludes, seems to be that taxation designed to close the inflationary gap such as a general sales tax is a necessary part of a successful anti-inflation program.

—C. A. E.

Q"THIS responsibility [passing legislation necessary to meet the needs of war] can no longer be left to bureaus nor political marionettes. Here in this government of ours, these so-called master minds of politics, distinguished only by their inexperience and incompetency, but steeped in foreign ideologies, have built a patchwork of bureaucratic directives. With these they seek to pit class against class, business against labor, farmer against consumer, and race against race."

—ROANE WARING,
National commander, American Legion.



NARUC Convention

MORE than 300 members of the National Association of Railroad and Utilities Commissioners opened their 3-day war conference at the Edgewater Beach hotel in Chicago on September 14th at the call of the association's retiring president, Frank W. Matson of Minnesota. Addresses of welcome were made by Mayor E. J. Kelly of Chicago and the chairman of the host commission, John D. Biggs of the Illinois Commerce Commission.

Following the response of welcome by Wade O. Martin of Louisiana, first vice president, the convention listened to the president's address. President Matson's address struck what proved to be the keynote of the meeting when he declared that the various state commissions have sought to cooperate with government agencies during the war without permanently giving up states' rights. "During this war we have experienced many invasions of state regulation, some of it unnecessary in our opinion, but to which we have submitted in the interest of winning the war." Matson said "our objective should be to recover as much of our regulatory authority as possible when peace returns."

Before the conference had been called to order the organization's executive committee in closed session squared off for the preliminaries of a battle with the sponsors of the Leah-Bailey aviation bill, which would give the Civil Aeronautics Board authority to regulate air commerce within a state. The executive committee adopted a resolution of the association's legislative committee proposing to commit the association to active opposition to the bill unless it is amended to safeguard states' rights.

At the first conference session in the afternoon, John D. Biggs, chairman of the Illinois Commerce Commission—the first state regulatory body to go on record against the aviation bill—declared that control, carried too far, becomes bureaucracy, and added: "When government gets out of the hands of the people our nation will cease to exist."

Washington policies tend toward hamstringing, overriding, or ignoring state regulation of utilities, Biggs charged.

Earlier at a meeting of three association committees, R. W. Peterson, chairman of the Wisconsin Public Service Commission, obtained support for a proposal that the association make an effort to get Congress to re-

The March of Events

define the powers of the Federal Power Commission. He charged that the FPC has reached out too far into state affairs and that the Supreme Court has upheld some "very strained interpretations" of FPC powers. He declared there is a widespread opinion that Congress did not intend to give the FPC all of the powers it has assumed.

The aviation bill was attacked by John E. Benton, general solicitor of the NARUC, who reported that the commissions of 26 states have fought the proposed law. He told the conference that the bill resorts to the term "domestic commerce" to avoid direct admission that it is intended to cover intrastate commerce. As the bill is written, it would give the CAB control over transportation "from anywhere to anywhere in the United States," Benton asserted.

At the morning session of September 15th air transportation regulation again became the topic for discussion with Stuart G. Tipton, assistant general counsel for the Civil Aeronautics Board, declaring that Federal authority over civil aviation was necessary to prevent overlapping and duplicating rules by the various states.

At this session the report of the Committee on Depreciation (see page 437) was submitted by its chairman, Nelson Lee Smith, commissioner-designate to the Federal Power Commission. Copies were distributed to members for further study. Also submitted were reports of the Committee on Legislation, headed by Walter R. McDonald of Georgia; Progress in the Regulation of Transportation Agencies, headed by George C. McConaughay of Ohio; Service and Facilities of Transportation Agencies, headed by Jerry W. Carter of Florida; and Regulatory Procedure, headed by Nat B. Knight of Louisiana.

During the afternoon session of September 15th reports were submitted for the Committee on Rates of Public Utilities, headed by J. W. Cornell of Idaho; the Committee on Valuation, headed by Porter Dunlap of Tennessee; the Committee on Corporate Finance, headed by W. C. Fankhauser. The report of the Committee on Progress in the Regulation of Public Utilities, headed by Leon Jourolmon, Jr., of Tennessee, was only available in preliminary draft form.

The topic for discussion during the afternoon session was utility regulation during wartime. Commissioner Frederick Stueck of Missouri submitted the results of an interesting

THE MARCH OF EVENTS

questionnaire showing that a majority of the answering commissioners were in favor of treating war taxes of utilities as operating expenses. This view was supported in a speech on the subject by Commissioner Clyde Olin Fisher of Connecticut.

Commissioner W. F. Whitney of Wisconsin assailed the Office of Price Administration for approving higher prices for fuel oil and then objecting to increases in utility rates for gas produced from fuel oil. The OPA operations with respect to utility rate regulation were described in a speech by Robert A. Nixon, director of the transportation and public utilities division of OPA.

During the sessions of the third day reports were received from the following committees: Accounts and Statistics, headed by Fred Kleinman of Illinois; Co-operation between State and Federal Commissions, headed by Hugh White of Alabama; Developments in Regulatory Law, headed by Frank Sommer of New Jersey; Special Telephone Studies, headed by Leon Jourolmon, Jr., of Tennessee; Special War Committee, headed by Walter R. McDonald of Georgia; and several reports dealing with special phases of transportation regulation.

In the morning of the last day the discussion on state autonomy in regulation was conducted under three heads: Donald Hacking of Utah, discussing the Federal Power Commission; John Siggins, Jr., of Pennsylvania, discussing the Federal Communications Commission; and Frederick G. Hamley, the association's assistant general solicitor, discussing the Interstate Commerce Commission.

In the afternoon of the last day the convention also heard a discussion on war-time transportation problems, led by Director Joseph B. Eastman of the Office of Defense Transportation.

Critics of the Federal Power Commission who charged that that body had invaded states' rights in regulatory procedures won a lively battle on the convention floor.

Overriding the pleas and arguments of several state commissioners and of the FPC's own general counsel, the association's member commissioners voted 25 to 15 to submit to Congress a demand that the Federal Power Act be remedied to stop what many of the state commissioners termed an encroachment on state powers by the FPC.

The votes were cast by commissions rather than by individual members of the association. Each state commission or other member group, including the FPC, was permitted to cast one vote.

The Federal Communications Commission, the Securities and Exchange Commission, and the FPC voted against the resolution committing the association to appeal to Congress. The Interstate Commerce Commission waived its vote.

Supporters and critics of the FPC aired their views before the vote was cast. After Gen-

eral Solicitor John E. Benton had outlined the resolution that contained proposed amendments to the Federal Power Act, H. Lester Hooker, Virginia commissioner and a past president of the association, pleaded with the members to push the fight to a finish. He accused the FPC of leaving a trail of broken promises that it would not invade state powers. He told the commissioners of the states they were fighting with their backs to the wall.

Charles Shann, FPC general counsel, denied that the FPC sought to deprive states of any rights, and said the dividing lines between interstate and state commerce had been defined by the Constitution and the courts, not the FPC.

He held that if the move to curb the FPC were to succeed and the state commissions attempted to assert powers over utilities, the commissions would be met by injunction suits on the ground that the utilities were in interstate commerce.

Paul Walker, member of the Federal Communications Commission, who said he was a strong supporter of states' rights ever since he was a member of the Oklahoma commission, urged a year's delay in action on the resolution, contending that the proposed amendments would permit utilities to escape regulation.

Joseph E. Conlon of New Jersey chided the association for quarreling with the FPC instead of concentrating on war problems. "We are way off the beam," he declared.

When the vote was taken, most midwestern and western states, including Illinois, voted for the resolution. Among the exceptions were Idaho, Kansas, Oklahoma, Utah, Washington, and Wyoming.

Director Eastman said the problem of handling war traffic was outside the range of normal transportation regulation. With a few possible exceptions, no legal responsibility rested on the Interstate Commerce Commission or the state commissions to assist ODT, he explained.

The convention elected Wade O. Martin to the presidency; George C. McConaughay of Ohio to become first vice president. John D. Biggs of Illinois was elected second vice president. John E. Benton, general solicitor, Ben Smart, secretary, Frederick G. Hamley, assistant general solicitor, were all reelected.

It was decided to hold the 1944 convention at Omaha, Nebraska.

WPB-FPC Agree on Gas Control

THE Office of War Utilities will exercise the lion's share of control over natural gas—with respect to both planning and projects—under a recent agreement signed by Chairman Nelson of the War Production Board and Chairman Olds of the Federal Power Commission. The purpose of the agreement was to

PUBLIC UTILITIES FORTNIGHTLY

draw the line of demarcation between the respective jurisdictions of the two agencies similar to the agreement entered into last year with respect to electric power.

Specifically, OWU will continue to initiate studies and plans for the mobilization of natural gas supply and distribution for the duration; determine on the necessity of pipe lines, etc.; allocate critical materials for gas facilities; and determine policy with respect to limitation of service and facilities where necessary in the interest of conservation.

The FPC will continue to exercise its statutory jurisdiction over natural gas companies subject to the emergency powers of the OWU and will issue orders with respect to the interconnection and construction of facilities, and generally consult and advise the OWU with respect to natural gas matters falling within the latter's jurisdiction. As in the case of electric power, WPB's authority over natural gas will be exercised by OWU.

Reclamation Bureau Split

DESENTRALIZATION of the Bureau of Reclamation and the establishment of six major field offices were announced on September 13th by Secretary of the Interior Ickes.

"The increasing number of interrelated and complex problems arising from the construction and operation of the many Bureau of Reclamation projects for irrigation, power, and related purposes makes it imperative at this time, in the interest of maximum efficiency, to establish area offices to coordinate the organization's activities in each of six areas," Mr. Ickes said in a statement.

Headquarters for the regional offices were established at Boise, Idaho; Sacramento, California; Boulder City, Nevada; Salt Lake City, Utah; Amarillo, Texas; and Billings, Montana.

The bureau now has 72 projects in operation, under construction, or authorized in 16 western states.

Gas Convention Date Changed

DUE to congestion in hotel and travel facilities, a change in the dates for the annual meeting of the American Gas Association was recently announced. The executive board on September 14th decided that the twenty-fifth annual meeting shall be held at the Jefferson hotel in St. Louis, Missouri, Tuesday, Wednesday, and Thursday, October 26th, 27th, and 28th.

As far as possible the meetings will be arranged in the same order and the same relative times as previously for the original dates.

Government Asks Coöperation

THREE government agencies appealed to industry and the public on September 8th to coöperate in a new and extensive program to

SEPT. 30, 1943

conserve man power, fuels, material, and equipment.

The appeal came from Donald M. Nelson, War Production Board chairman; Joseph B. Eastman, director of the Office of Defense Transportation; and Secretary Harold L. Ickes, as administrator of solid fuels and petroleum administrator for war.

The war chiefs asked for coöperation in conserving, coal, oil, gas, electricity, communications, water, and transportation, calling these facilities "the life blood and the nerves of our industrial effort."

Savings in these fields not only will make available for war purposes greater supplies of fuels and critical materials; cutting down their use likewise will result in important savings in man power and transportation, the statement said.

"Although the savings in a single household, commercial establishment, or industrial plant may seem insignificant, the possible aggregate savings are tremendous," it went on. "It is estimated that by a reasonably economic use of coal for domestic and commercial heating there would be a saving of over 20,000,000 tons annually; a 10 per cent reduction in domestic and commercial use of electricity would save over 4,000,000 tons of coal or its equivalent and more than 75,000,000 lamp bulbs; a 10 per cent reduction in the use of manufactured gas would save over 1,500,000 barrels of fuel oil. In addition, vast quantities of other critical materials and man power would be released for vital war uses."

The new program will be pushed intensively through every possible channel of information, the statement said.

Gas Line Vital

THE Federal Power Commission on September 9th held that it must recognize a ruling of the War Production Board that construction of a 1,200-mile, 24-inch pipe line from southwest gas fields to the Appalachian area is essential to war power needs.

Chairman Leland Olds overruled pleas of Appalachian coal and labor interests who oppose construction of the line on the ground that there are adequate coal stores for industrial fuel in the area which would be served by the gas line.

Tom J. McGrath, representing the National Coal Association and United Mine Workers of America, said his interests challenged the WPB findings of necessity for the line and maintained that the question involved "the future welfare of hundreds of thousands of coal miners."

Other rail spokesmen contended they could show that a "superabundance of coal" could be used instead of gas and the pipe-line steel saved for badly needed rail equipment and other war purposes. To suggestions that acceptance of the WPB findings would abrogate the commission's function to decide on

THE MARCH OF EVENTS

questions of public necessity, Chairman Olds said that an opportunity to challenge the pipe line's need would be given later.

The commission on September 9th opened a hearing on one of two rival applications for authority to build and operate the giant \$50,000,000 pipe line.

Bonneville Power Report

THE Bonneville Administration, in its recent report for the twelve months ended June 30th, showed generation of approximately 4,820,000,000 kilowatt hours of energy. Of that amount, 98 per cent was firm power. Deliveries to industrial consumers, mainly large war plants, absorbed nearly 84 per cent of the total deliveries for the fiscal year; about 10 per cent went to private utilities (mainly Portland General Electric Company); slightly over 3 per cent was absorbed by public agencies in the Northwest; and the remainder went to government agencies, mainly Army and Navy posts.

Gross power revenues for the fiscal year were \$11,899,185. There was an average of 60 contract customers on the lines as against 35 in the preceding fiscal year, when power deliveries were only about 2,631,000,000 kilowatt hours, and gross revenues were \$5,159,750.

At mid-year, the administration's peak demand had reached 841,000 kilowatts as against 468,000 on June 30, 1942. The increase for the first half of 1943 was 160,000 kilowatts. During June the system operated at an 86.4 per cent load factor, but was expected to repeat last year's September factor of nearly 98 per cent.

Asked to Explain Raid

THE State Department recently said the Argentine government had been requested to give the United States Embassy in Buenos Aires "complete information" concerning the arrest of several employees of the American & Foreign Power Company subsidiary in the Argentine capital on September 4th.

Arizona

Hearing Reset

THE hearing on Tucson Gas, Electric Light & Power Company's application for a preliminary injunction enjoining the Arizona Corporation Commission from enforcing its order for the utility to reduce electric rates in Tucson, was recently reset for September 24th in the U. S. District Court. Originally the hearing was to have been held September 8th. Judge Albert M. Sarnes, Tucson, Judge Dave W. Ling, Phoenix, and Judge Clifton Mathews of the Ninth U. S. Circuit Court of Appeals,

Police occupied the main office of the subsidiary on that date, the department said, and arrested several of the officers, one of them an American, but released them all that night.

Resignation Approved

ALFRED FORTAS, Under Secretary of the Interior, whose resignation to enter the armed services was rejected by President Roosevelt in May, has obtained the approval of the Chief Executive and Secretary Ickes for his release from deferment as of November 15th.

Noting that the 2-B classification given him by his Selective Service board at the request of the Interior Department would expire on that date, the Under Secretary wrote Mr. Ickes on September 7th asserting he would be "most grateful" for a decision not to request extension of the deferment.

Strike Notices Withdrawn

THE National Labor Relations Board early this month announced the withdrawal by the CIO's Utility Workers Organizing Committee of seven strike notices involving the operations of three Ohio and two Michigan public utilities. Up to the time of withdrawal, the NLRB had scheduled a strike poll, on September 7th, among approximately 10,000 production and maintenance employees of Cleveland Electric Illuminating Company, the Ohio Edison Company, Central Ohio Light & Power, Detroit Edison Company, and Consumers Power Company. These companies are the exclusive distributors of electric power in the industrial areas of Cleveland, Akron, Youngstown, Detroit.

All the notices were filed on August 7th, in sympathy with the notice filed on the same day by Local 270 of the UWOC involving the operations of Cleveland Electric. The notices filed by the other locals revolved about their refusal to permit the four other public utilities to energize any line furnishing current to the Cleveland Company in the event of a strike by the employees of the Cleveland Company.

San Francisco, will make up the tribunal to conduct the hearing.

The rate reduction, affecting some 18,000 consumers, was to have been effective September 8th. Orders for the reduction were made by the commission following a hearing in May. Request of the utility for a rehearing was turned down by the commission late in August when the Tucson firm sought a hearing after the tax commission had boosted the firm's property valuation \$1,200,000. The utility contends that the rate reduction would deprive it of a fair return upon its property.

PUBLIC UTILITIES FORTNIGHTLY

Arkansas

No Shortage of Power

CHAIRMAN A. B. Hill of the state utilities commission, supported by a report of the Southwest power pool, denied recently that southwestern states face a curtailment of electric consumption.

Douglas Wright, acting administrator of the newly created Southwestern Power Administration, on September 2nd at Fort Smith said the Southwest was facing "strict rationing of power" unless power production is increased soon. "The public has been misled into believing that there has been a surplus of power in the Southwest," he told an Arkansas-Oklahoma flood-control conference.

Asked why the WPB had not recently issued a report declaring there was a power surplus

in the area, Mr. Wright made no direct reply.

Chairman Hill said that "although we may have had a close call, there is nothing to be excited about. I can say without reservation there is no necessity for curtailment of power."

C. S. Lynch, executive vice president of the Arkansas Power & Light Company, expressed surprise at the prediction of rationing of power in the Southwest power pool territory.

"The business-managed electric companies in the Southwest power pool have continuously served record-breaking power demands without the slightest interruption to civilian consumers," Mr. Lynch said. "Many of the companies have taken on almost overnight loads greater than their entire demand before the war."

California

Hetch Hetchy Report

THE balance between revenues and expenditures for the Hetch Hetchy water and power project and the San Francisco Water Department should be accomplished in eight years, E. G. Cahill, utilities manager, declared recently in a report to "stockholders of the San Francisco Water Department."

Cahill's summary was released by Mayor Rossi and was drawn, according to city hall reports, at the mayor's request. It purported to show the balance sheet of both city-owned properties in excellent shape, stating flatly

that after the 8-year period "no further tax moneys will be required, either for bond redemption or interest."

The analysis said that bonds totaling \$89,600,000 have been issued for the construction of the Hetch Hetchy project and bonds totaling \$53,095,000 have been issued for the purchase of the local water-distributing system. Of the total bond issue of \$142,095,000 the city has retired \$54,183,000 with bonds being redeemed at the rate of \$3,788,000 a year.

Cahill said that of the bonds already retired \$26,136,119 was accomplished by tax moneys and \$28,046,881 out of earnings.

Colorado

Purchase Proposal Approved

By a vote of 143 to 35, voters of Estes Park on September 7th approved a town council proposal to acquire the Public Service Company's electric distribution system within the town.

The proposal also authorizes the council to issue revenue bonds in an amount not to exceed \$95,000 to finance the purchase or condemnation of poles, lines, transformers, and other apparatus of the system. Town officials said the proposal is intended to enable the town to make use of electric power to be generated by the Colorado-Big Thompson power facilities.

A result of the recent vote was to enable the town council to make an offer of purchase to the Public Service Company.

Would Transfer Rights

A HEARING before the state public utilities commission on the Highlands Utilities Company's petition to transfer its physical properties and government rights to the Empire Electrical Association, a rural electrification unit, was begun the first of this month.

Commission Chairman Sherman said the city of Cortez, community involved in the transfer, was represented by its attorneys, James B. Garrison, Charles R. Enos, and John Shireman.

Worth Allen, attorney for the Colorado Electrical League, said he was not actively participating in the case, but wanted to ascertain for the league that the REA purchaser would be subject to state laws and regulations on the same basis as a private utility concern.

THE MARCH OF EVENTS

Georgia

Rate Reduction Announced

C. Q. WRIGHT, city manager for the Albany C. water, light, and gas commission, early this month announced a reduction in rates for residential lighting averaging 12½ per cent.

He said the reduction, which would cost the city about \$18,000 in revenue annually, was in conformity with the commission's policy of maintaining rates as low, or lower, than those offered by privately owned companies. Georgia Power has announced reductions.

Illinois

Zone System Killed

In a sweeping order issued at Springfield on September 8th the state commerce commission directed Chicago's three major local transportation companies to install and have in operation by October 1st a complete system of intercompany transfers with a maximum 10-cent fare. At the same time a council committee received notice that the State street subway would be put into operation October 17th.

Reciting that it would feel itself derelict in its duty if it delayed further in granting the intercompany transfers, the commission ordered that the companies—surface and elevated lines and Chicago Motor Coach Company—establish transfer points wherever the lines of one utility "cross, intersect, diverge from, or converge upon" the lines of either of

the other local transportation companies. By doing so the commissioners wiped out the so-called zone system of intercompany transfers. They also made imperative the transfer of passengers from the surface lines to the bus company. And they commanded that the companies involved make up a schedule of operations for the new setup within ten days. If the companies failed to do so, the commission itself would have its staff make a plan and declare it in force, a member of the commission said.

Receipts from the intercompany operations, under the order, are to be kept separate from nontransfer revenues. The period of one year is to be recognized as a trial period and monthly reports on the interchange fares are to be made to the state commission. The division of fares will be passed on later.

Kentucky

Power Contract Studied

ACTION to determine whether the city of Paducah can purchase the local electric power distribution system of the Kentucky Utilities Company under a plan whereby the city would buy wholesale power from the company was instituted recently by the board of commissioners.

Mayor Pierce E. Lackey told the board last month that such a plan might be worked out, after he had held a conference with R. M. Watt, president of the utility company. Decision to ask Watt for information on the proposal was made by the board after Mayor Lackey read a statement in which he said the Tennessee Valley Authority had dropped negotiations with the Kentucky Utilities Company,

looking toward acquisition of all properties of the company west of the Cumberland river.

City Manager H. G. McElwee was instructed to communicate with Watt and ask him to state the price at which the company will sell the local properties to the city and present other information relating to the proposal.

Heretofore the board has taken the position that it wanted to buy the KU distribution system in Paducah and contract with the TVA for power. Mayor Lackey said there was no immediate prospect that the plan could be worked out.

Mayor Lackey and Corporation Counsel Adrian H. Terrell left Paducah on September 13th for a conference with Mr. Watt, regarding the city's proposal to purchase the Paducah electric distribution system.

North Carolina

Tax Valuations Raised

In order to meet war-time requirements through expansion, improvement, and new

equipment, public utilities in North Carolina increased the taxable value of their properties to the extent of \$9,574,558 during the fiscal year ending June 30th, according to a report

PUBLIC UTILITIES FORTNIGHTLY

issued by the state board of assessment.

Holdings of these companies on a taxation assessment basis were listed as \$302,981,464 for the 1943-44 fiscal year compared with \$293,406,906 the previous year.

Thirty-one electrical and gas utilities found their property values increased by \$7,381,667. Telephone companies ranked next with a gain of \$1,675,172 while the lone pipe-line company had its valuation boosted by \$300,000. Railroads were boosted to the extent of only \$14,838. The board pointed out that the tax property of railroads is valued quadrennially in accordance with law, and the only changes made this year were based on additional or reduced lines.

Valuations according to groups of public

service companies with the 1943 figures listed first are: electric, gas, etc., \$115,030,394 and \$107,648,727; telephones, \$32,723,003 and \$30,847,831; railroads, \$151,850,464 and \$151,835,626; pipe line, \$900,000 and \$600,000; water, \$136,152 and \$133,019; telegraph, \$1,313,951 and \$1,314,203 (this was the only decrease because of the lower Postal assessment); Pullman, \$740,000 and \$740,000; express, \$280,000 and \$280,000; ferry, \$7,500 and \$7,500.

Duke Power Company, which serves a large territory of North Carolina and South Carolina in sections thickly populated by textile mills, Army camps, and other large industries, topped the electric companies in boosting property and its tax value increased by \$3,326,110.

Ohio

State Courts without Power

THE ninth district court of appeals recently held that state courts have no jurisdiction over Federal agencies created under war-time conditions. The decision was given by the court in reviewing an appeal by the city of Akron from dismissal in common pleas court of an injunction suit seeking to restrain the Akron Transportation Company from carrying out Office of Defense Transportation orders to re-duce service on 10 city bus routes.

The ruling upheld an earlier decision by Common Pleas Judge Ray B. Watters. Presiding Judge Perry H. Teven said the court of appeals unanimously agreed that state courts have no jurisdiction "in attacking the validity of decrees issued by the Office of Defense Transportation."

The ODT had ordered the mass transportation system to shorten 9 city bus routes and eliminate a tenth. Mayor George B. Harter instigated the injunction suit, declaring inade-

quate service would result from the ODT order.

To Develop Mine Area

THE Ohio Power Company on September 4th announced acquisition of a large acreage of coal lands southwest of the city of Zanesville which will be developed at once into one of the largest strip-mining operations in Ohio, to supply coal for the company's big power plant at Philo.

From 3,500 to 4,000 acres are included in the land purchased by the power company from R. B. Hurst of Columbus and Sam H. Carrick, veteran southeastern Ohio coal operator. Coal deposits are said to range from 10,000,000 to 12,000,000 tons which will be stripped by the Mauger Construction Company of Columbus which was awarded the contract for the operation which is designed to supply the Philo plant with more than one-half million tons yearly.

Oklahoma

Service Men's Bus Rate Cut

REDUCED bus and interurban fares for military personnel traveling between Oklahoma City and the Norman naval bases was agreed upon early this month at a conference of transportation officials and the state corporation commission.

One-way fares, which have varied from 40 cents to 45 cents, would be made uniform at 35 cents, under the agreement signed by the G. A. Nichols Company, the Oklahoma Transportation Company, the Santa Fe Trail Transportation Company, and the Oklahoma Railway Company.

SEPT. 30, 1943

Agreement by the Oklahoma Railway Company must be approved by the Federal court however.

The new rates would apply to "male or female personnel of the United States Army, Navy, Marine Corps, and Coast Guard, traveling in their respective uniforms and at their own expense, when on official leaves, furlough, or pass."

Utility Properties Sold

THE properties of the Public Service Company in Oklahoma, electrical distributor in Harper, Beaver, and Texas counties, have

THE MARCH OF EVENTS

been sold to the Northwestern Electric cooperative with headquarters at Woodward, for \$17,000.

The deal was closed at a St. Louis conference early this month, attended by Walter Thomas of Woodward, as attorney for the Public Service Company; R. C. Enlow of

Woodward, manager of the Northwestern, together with Alfred Jones as president and C. W. Hendren as treasurer of Northwestern. The deal included the electric properties at Buffalo, Hooker, Selman, Rosston, and Gate.

Enlow announced no changes in personnel are to be made.

Oregon

Co-op Gets Ruling

THE Blachly-Lane County Coöperative Electric Association, now operating in Lane county, is subject to all conditions and requirements of the state hydroelectric act de-

spite the fact that it has received a permit or license from the Federal Power Commission, Attorney General I. H. Van Winkle ruled last month.

The opinion dealt largely with the indebtedness of the association.

Pennsylvania

Plant Sale Approved

THE state public utility commission on September 9th approved sale by the Lehigh Valley Transit Company to the Pennsylvania Power & Light Company, operating in Harrisburg and other eastern counties, of an electric generating plant at Allentown for \$1,900,000. Richard J. Beamish, then a member of the commission, contended this plant was useless in 1937 when the PP&L endeavored to place a value of \$300,000 on it for rate-making purposes. Beamish ordered the plant, then leased by the company and held in readiness for

emergency purposes, to be put into production for test purposes. The plant was put into production but not as quickly as the company said it could be, according to Beamish.

Commissioner Thomas C. Buchanan, Democrat, and Commissioner B. Frank Morgal, Republican, voted in the negative on approval of the purchase, and Buchanan wrote a dissenting opinion. The majority opinion held that the present lease calls for payment of \$250,000 a year until the end of 1947 and that by that time more than \$1,000,000 will have been paid out and the PP&L will still be without title to the property.

South Carolina

Personnel Cuts Ordered

THE South Carolina Public Service (Santee-Cooper) Authority's board of directors has ordered a reduction in administrative costs for the operation of the large publicly owned hydroelectric development under its charge, it was recently announced by James H. Hammond, chairman of the board.

A part of the reduction, Mr. Hammond said, would be achieved through decrease in the authority's personnel. His statement in this connection confirmed current reports.

Mr. Hammond said the board had authorized its general manager, R. M. Cooper, to make the reductions in personnel. He did not say to exactly what extent personnel would be reduced, and did not list the names of employees who would be dropped.

Cooper had been authorized, Chairman Hammond said, to begin "very definite reduction in the personnel and expenses of the authority in the immediate future. All reductions will be achieved in an orderly method and the combined savings will approximate \$300,000 annually."

Texas

Flat Charge Levied

THE city of San Antonio has passed an ordinance levying a flat charge of \$210,000

on the San Antonio Transit Company for the privilege of operating on the city streets during 1943.

The transit company, which operates busses

PUBLIC UTILITIES FORTNIGHTLY

throughout the city, had applied for a 25-year franchise and had offered 2 per cent of the gross receipts for such a franchise. The \$210,000 represents about 3 per cent on the company's estimated \$7,000,000 income for the year. Dallas Rupe, president of the company, without making a formal statement of his position on the amount assessed, charged that the

city acted after hearing the opposition and implied that he had not received a hearing on the ordinance.

City officials indicated that they would not negotiate further on a franchise until the \$210,000 is paid in full. From that sum will be deducted about \$40,000 paid early in the year as a \$5 seat tax.

Utah

Utah Electric Rates Reduced

THE Utah Public Service Commission has ordered Utah Power & Light Company to reduce rates charged for electric energy in the state of Utah by approximately \$1,504,644 a year. In an opinion signed by Chairman Balliff, in which Commissioner Carlson concurred, the commission found that the company's gross investment before depreciation of property used and useful in Utah was not more than

\$62,949,502 as of December 31, 1942. The company's claimed investment in the amount of \$66,908,440 was held to include various erroneous items.

Evidence as to reproduction cost new less depreciation was disregarded by the commission because of its "essential fallaciousness." Evidence as to trended or translated value of claimed investment through 1942 was likewise rejected as being too conjectural.

Commissioner Hacking dissented in part.

Washington

PUD Dickering for Dam

THE Cowlitz County Public Utilities District is negotiating with the Pacific Power & Light Company for purchase of its Ariel dam properties on the Lewis river, Manager H. G. Kelsey said recently.

Power from the dam, Kelsey said, would supplement energy provided by the local plant, making it unnecessary to purchase outside power when the utility system is extended. At present, some of the power from the Ariel plant goes into Vancouver and Portland.

Bimonthly Billing Planned

THE Seattle City Light Department and Puget Sound Power & Light Company

will institute bimonthly meter readings in a move designed to help meet the critical labor shortage in the area, it was announced recently. Customers will be rendered bills for periods of two months instead of being billed every month.

The plan will apply only to subscribers in the outlying districts and downtown customers will continue to receive bills once a month, Eugene R. Hoffman, superintendent of City Light, said.

The Puget Sound Company will put the new system into effect throughout its territory—both in Seattle and the outlying districts, Frank McLaughlin, president, said. He added that half the customers will be billed in even-numbered months and the other half in odd-numbered months.

Wisconsin

Could Afford Millions for Gas Firm

THE city of Madison could afford to pay \$11,000,000 or more for Madison Gas & Electric Company, members of the special city negotiating subcommittee were told recently by M. C. Woodward, Chicago, representative of Stifel, Nicolaus & Co., purchase negotiating agents, although he estimated the company's present book value at "slightly less than \$9,000,000."

On this basis, Woodward said, the city could set up "a sound bond issue" which it could "pay off without difficulty."

Woodward also declared that the city could afford to pay more for the utility than the investing public would have to pay if the utility's stock were distributed among the numerous small shareholders of the parent holding company, American Light & Traction, because the company's net earnings would be increased, under municipal ownership, by exemption from Federal income and excess profits taxes.

The Latest Utility Rulings

Rate Notice to OPA Void When Lacking Consent to Intervention



THE Ohio commission ordered cancellation of proposed increases in intrastate railroad rates on the ground that the railroad company's notice to the Office of Price Administration, pursuant to the Emergency Price Control Act of 1942, as amended, omitted a consent to intervention by the Federal agency. The OPA had protested against the increases because the notice did not comply with the statute.

The statute provides, among other things, that each notice shall contain a statement that the common carrier or other public utility "consents to the timely intervention by the Price Administrator."

The railroad company contended that the notice was sufficient to meet the

lawful requirements and that OPA did actually intervene in the proceedings. The commission observed, however, that counsel for OPA appeared at the hearing solely for the purpose of defending its contention that the notice failed to meet the lawful requirements.

An additional contention was made by the company that the proposed increases were not numerous enough to be considered as a general increase. The commission did not agree with this view since the tariff covered a sufficient number of rates to come within the meaning of the term "general increase." *Re Proposed Increased Rates and Charges for Transportation of Sand and Gravel (Investigation and Suspension Docket No. 161).*



FPC License Required for Reconstruction Of Power Dam

THE Wisconsin Public Service Corporation has been ordered by the Federal Power Commission to file an application for license under the Federal Power Act for the operation and maintenance of its Tomahawk project on the Wisconsin river, following a finding by the commission that the Wisconsin river is a navigable water of the United States from its source in Lac Vieux Desert to its junction with the Mississippi river, and that the interests of interstate commerce would be affected by the reconstruction of a power dam. The company had filed a declaration of intention, under § 23(b) of the act, to reconstruct the dam.

The fact that the new dam was to be constructed principally at the site of a

former structure and to approximately the same height to create a reservoir of the same capacity, said the commission, did not relieve the company of the obligation to secure appropriate Federal authorization.

If the river had been non-navigable at this point, the obligation would have been to file a declaration of intention, but, since the river was a navigable water of the United States, an application for license would be more appropriate. The commission stated further on this point:

This obligation to proceed as outlined would exist as a general proposition, but in the case of the Tomahawk project, there are additional features which make the obligation more evident: The old dam and power plant had been out of operation for some time; the new structure is a concrete

PUBLIC UTILITIES FORTNIGHTLY

structure replacing an old timber crib structure; and the new power plant is of an entirely new design and capacity. The declarant therefore was correct in taking the first step to secure Federal authorization although, since the river is navigable, an application for license rather than a declaration of intention should have been filed.

The finding on the issue of navigability was based upon extensive use of the river for transportation throughout its entire length, log driving, rafting of lumber, steamboat operation, and state statutes requiring installation of chutes, sluices, or other devices, at dams to pre-

vent interference with the passage of logs, rafts, or other similar forest products.

The commission ruled that if the river was navigable prior to the construction of dams and Federal authorization had not been obtained for their maintenance, these dams might be abated, and their presence in the stream did not in any way constitute a bar to a finding of navigability or to an assertion of Federal jurisdiction. *Re Wisconsin Public Service Corp. (Opinion No. 96, Docket No. DI-134).*



Applicant for Authority to Construct Pipe Line Must Show Financial Ability

EVIDENCE of firm commitments for securing the financing necessary to effect proposed construction adequately to serve the public, firm commitments for an adequate supply of natural gas, and other evidence necessary to meet the minimum requirements of the Federal Power Commission, together with authorization from the War Production Board for materials required, were demanded by the Federal Power Commission as a condition of authorizing the construction of a pipe line by the Tennessee Gas & Transmission Company.

There was said to be an increasing demand for, and a diminishing supply of, natural gas in the region affected. It followed that a realistic view of the situation definitely showed that public convenience and necessity would be served by a pipe line in the area. It was stated:

The principal service to be rendered by the proposed line is the delivery of natural gas at its northern terminus to natural gas companies or others now serving the Appalachian region, and thereby to relieve the gas shortage now present in the region and imminently becoming intense and critical. In addition, it is planned to serve industries located along the route of the line. . . . It is clear that many of the industrial users of natural gas in the Appalachian region are dependent upon natural gas as a fuel because of elements of temperature control and other manufacturing techniques. . . . It is clear from the testimony of record that for a considerable period none of the companies operating in the region has had material quantities of gas available for sale to one another in addition to existing transactions. In fact, officials of the companies in the area indicated that relief must come from outside the region.

Re Tennessee Gas & Transmission Co. (Opinion No. 93, Docket No. G-230).



Gas Company Acquiring Facilities of Subsidiary Must Obtain Certificate

AN application by Southern United Gas Company for authority to acquire and operate facilities of a wholly owned subsidiary was granted by the Federal Power Commission in a decision in which it was ruled that a "grandfather" certificate issued under § 7 of the

Natural Gas Act to the subsidiary should be vacated when the facilities are acquired and operated by the holding company, and that the holding company must itself seek a certificate.

The commission pointed out that there is no provision in the Natural Gas Act

THE LATEST UTILITY RULINGS

for the transfer of a certificate issued under the provisions of § 7. The parent company had not acquired the facilities of the subsidiary and filed a "grandfather" application covering the facilities and operations within the 90-day period allowed after amendment to § 7. It was, therefore, subject to the provisions of

§ 7(c) that no natural gas company should engage in transportation or sale of gas, subject to the jurisdiction of the commission, or acquire or operate facilities therefor without obtaining a certificate. *Re Southern United Gas Co. et al. (Opinion No. 92, Docket Nos. G-443, G-306, G-307.)*



Contract Carrier Not Required to Obtain Certificate of Authority to Do Business

AN application by a New Jersey trucking company for a permit evidencing the Pennsylvania commission's approval of its right to do business in Pennsylvania as a contract carrier was dismissed on the ground that such approval is not required. The commission said:

... the proper procedure does not require commission approval before a foreign contract carrier may be legally constituted to do business in Pennsylvania—but if it seeks to actually operate as a contract carrier within Pennsylvania, it must first obtain a permit from the commission under the provisions of Article VIII of the Public Utility Law.

Thus, if a foreign contract carrier seeks to

do business as an interstate contract carrier, it needs secure only a certificate of authority from the department of state. However, if it desires to operate as an intrastate contract carrier in Pennsylvania, it must obtain, in addition to the certificate of authority issued by the department of state, a permit from the public utility commission approving such operation.

The applicant in this case having secured a certificate of authority from the department of state, entitling him to do business in Pennsylvania, has complied with the provisions of the Business Corporation Law and needs only a permit from this commission approving his operation as an intrastate contract carrier in Pennsylvania.

Re DMA Trucking Corp. (Application Docket No. 42632, Folder 1).



Simplification Plan Disapproved by Federal Commission

A PLAN for the divestment of control of a holding company system under § 11(e) of the Holding Company Act was disapproved by the Securities and Exchange Commission because it failed to assure that upon its consummation the elements of control or controlling influence would cease to exist and it failed to afford assurance of prompt and effective conformance with the provisions of § 11 of the act. The plan, said the commission, provided no assurance that it would be carried out with reasonable promptness, and made no provision for the redistribution of voting power so as to make it fair and equitable to the persons affected.

The commission, besides disapproving the plan, ordered the company to

change its present capitalization to one class of stock—namely, common stock—and ordered that the company take such action consistent with the provisions of the act as would cause it to cease to be a holding company.

A holding company which provides no services for its subsidiaries, contributes nothing to the normal functioning of the system companies, and is economically unnecessary in their operation, the commission held, unduly and unnecessarily complicates the system. The corporate existence of a holding company extends the holding company pyramid beyond the degree permitted by the "great-grandfather" clause of § 11(b)(2), where in some instances there are three holding companies superimposed upon operating

PUBLIC UTILITIES FORTNIGHTLY

companies in the system, and in other instances the number of tiers exceeds that number.

The top holding company unduly and unnecessarily complicates the structure of a holding company system when the preferred stock of the top holding company rests upon junior equity securities in the portfolio and earnings on the portfolio securities cannot support the outstanding preferred stock.

Voting power, the commission also held, is unfairly and inequitably distributed where the common stock of the holding company has little claim to system earnings and such claim is small in

amount in relation to the combined consolidated operating revenues and gross income in the system, and where the combined book assets of the subsidiary systems are over 50 times the common stock book equity of the parent. Voting power is also unfairly and inequitably distributed between preferred and common stock where preferred stock, with a claim of about 82 per cent of the total capitalization and surplus, has only 15 per cent of voting control, while common stock, representing 85 per cent of voting control, has only a small claim to earnings. *Re United Corp.* (File Nos. 54-33, 59-25, Release No. 4478).



Advantages of Merger

AUTHORIZATION was granted by the Federal Power Commission to the Pennsylvania Electric Company to acquire the property of Keystone Public Service Company and Bradford Electric Company upon a finding that the merger of facilities, when consummated, would result in economies due to simplification of corporate structures, elimination of items of corporate expenses, and dupli-

cation of records and reports. Service to consumers, the commission said, should be enhanced since capital to meet increasing needs and demands would be more readily available and physical interconnection of the facilities should be conducive to improved operating stability and continuity of service. *Re Pennsylvania Electric Co.* (Opinion No. 100, Docket Nos. IT-5789, IT-5804).



Report of Investigators Properly Excluded By Commission

No error was found by a New York court reviewing a decision of the state commission determining the rate to which an electric utility was entitled for stand-by service furnished to an ice company. The commission had excluded a report of its investigators and had denied a request to broaden the scope of the hearing to include the reasonableness generally of utility rates, rules, and regulations.

The legislature created the commission, the court pointed out, with two functions, among others—one quasi judicial, wherein the members pass upon prices for utility service and the reasonableness of rules and regulations; the other function being to control and di-

rect a large number of persons working as engineers, inspectors, and the like who, with or without complaints to the commission, investigate to ascertain what is fair between the seller and the purchaser in a field particularly subject to monopolistic tendencies.

The courts, it was said, have determined long since that such a union of inquisitorial and judicial powers does not offend against the Constitution. Whether the combination is "a happy one is open to question," but the objections, if any there be to the general plan, should not be addressed to the courts but to the legislature. Turning to the particular points at issue, the court continued:

THE LATEST UTILITY RULINGS

The proceeding could have been started by the commission "upon complaint or upon its own motion." If begun upon its own motion in a field so vast as the rules, regulations, and rates of the utilities of the state, a preliminary investigation would be required and proper. In an entirely different field, but with somewhat the same thought, a grand jury investigated prior to a trial, and the returning of an indictment raises no presumption of guilt. There was no error in excluding the report of the two investigators; indeed it would be difficult to understand under what theory the hearsay statements and conclusions would be competent, and the ruling of the commission earlier quoted gave to all the parties the privilege to call those who made the report to ascertain facts. The conclusions to be drawn therefrom could have been developed by

experts privately employed by the litigating parties. The commission is not bound by technical rules of evidence (§ 20, Public Service Law), but the ruling did not offend against such rules and, further, it seems sensible and wise that the body which is to draw the decisive conclusions not resort to expert evidence from its own staff. The petitioner herein is not aggrieved by the ruling. An inquiry as to the rates generally of this great utility would involve months of time and a staggering amount of money for expenses. Unless good cause therefor was shown, certainly the commission was not required to grant the request of a customer who disapproves of the classification in which he finds himself.

*Premium Ice Co., Inc. v. Maltbie et al.
43 NY Supp (2d) 71.*



Owner of Leased Hydroelectric Plant Subject to FPC Jurisdiction

In a proceeding under the Federal Power Act relating to accounting entries of the Indiana Hydro-Electric Power Company the Federal Power Commission held untenable a contention that the company was not subject to the jurisdiction of the commission because it did not operate two hydroelectric plants and a connecting transmission line. These properties are owned by this company but are operated by an affiliate under a lease.

Section 201(e) of the act, the commis-

sion pointed out, defines a public utility as any person "who owns or operates facilities subject to the jurisdiction of the commission" under Part II of the act. The owning company was, therefore, held to be a public utility subject to the commission's system of accounts.

The commission ruled on various items and ordered the disposition of amounts deemed write-ups or otherwise improper inclusions in plant account. *Re Indiana Hydro-Electric Power Co. (Opinion No. 97, Docket No. IT-5681).*



Private Corporation Cannot Appeal From Order Directed at Railroad

An order of the Missouri commission requiring a railroad company to remove buildings, pumps, signs, tanks, and other obstructions near a crossing and requiring the state highway commission to prohibit parking on the shoulders of its highway within 200 feet of the crossing was held by the Missouri Supreme Court not to be an order directed at a private corporation owning structures on the railroad's right of way under lease and allegedly obstructing the view of travelers. The order, the commission held, did not invade any constitutional

rights of this corporation, and, therefore, the supreme court was without jurisdiction to review a judgment affirming the order.

The mere fact that the corporation invoked certain constitutional provisions, declared the court, did not necessarily mean that a constitutional question was involved in the case. A question of constitutional law must in fact exist. It was pointed out that the commission is not a "state officer" within the meaning of a pertinent constitutional provision, and, therefore, jurisdiction did not attach by

PUBLIC UTILITIES FORTNIGHTLY

reason of the commission being a party to the appeal.

The American Petroleum Exchange, appealing from the order, argued that since it owned the filling station and its accessories and had leased the right of way from the railroad, the effect of the commission's order was to take or damage its private property for public use without paying for it, thus infringing its constitutional rights. It was noted by the court, however, that the order did not direct the American Petroleum Exchange to do anything. It was addressed to the railroad and to the highway commission.

The American Petroleum Exchange, said the court, is a private corporation, and the commission did not have, and could not exercise, any jurisdiction over

it. The commission is not invested with the power of eminent domain and cannot subject property to public use. The commission has no power to declare or enforce any principle of law or equity, and as a result it cannot determine damages or award pecuniary relief. Neither may the commission abate a nuisance or award consequential damages.

Whether the company would be entitled to damages in the future was not before the court, and the court did not express an opinion on that question, nor on the question as to how or by whom the order was to be carried out and whether the company might then be affected. *American Petroleum Exchange v. Public Service Commission*, 172 SW(2d) 952.



Other Important Rulings

THE Washington Department of Public Service held that a motor carrier furnishing through service may be authorized to conduct local service along the route where existing local service is inadequate, without first giving the existing carrier an opportunity to improve its service, in view of the policy of the Office of Defense Transportation concerning conservation of gasoline, equipment, tires and man power, such policy precluding any improvement of existing service during the war. *Re Lawrence* (Order MV No. 39320, Hearing No. 2886, Cause No. FH 7680).

An order of the Securities and Exchange Commission requiring the Middle West Corporation and subsidiaries to end the corporate existence of either of two system companies and to substitute a single common stock capitalization was upheld by the United States Court of Appeals for the District of Columbia as against an attack on the single stock requirement. The commission had held that preferred stock would complicate the

corporate structure and result in an unfair distribution of voting power. *Central & South West Utilities Co. et al. v. Securities and Exchange Commission*, 136 F(2d) 273.

The Wisconsin commission held that a return somewhat in excess of 6 per cent for a telephone company would not be unreasonable where the company had not accumulated a depreciation reserve fund, or any funds for rehabilitation of property required at the time, and salaries of the officers were merely nominal. *Re Skillet Falls Teleph. Co.* (2-U-1911).

The Wisconsin commission held that it had jurisdiction to consider a railroad's application for authority to discontinue a station agency and to substitute a pre-paid nonagency station without a caretaker. *Re Thomson* (2-R-1512).

The Wisconsin commission, in fixing rates for fire protection service, ruled that it had no power to make retroactive rate orders. *Re Pardeeville* (2-U-1860).

Note.—The cases above referred to, where decided by courts or regulatory commissions, will be published in full or abstracted in *Public Utilities Reports*.

PREPRINTED FROM

Public Utilities Reports

COMPRISING THE DECISIONS, ORDERS, AND
RECOMMENDATIONS OF COURTS AND COMMISSIONS



VOLUME 49 PUR(NS)

NUMBER 5

Points of Special Interest

SUBJECT	PAGE
Nonutility land excluded from rate base	257
Capital stock expenses	257
Payment to subsidiary for easement	257
Land rights acquired in merger	257
Utility status of operations on private property	257
Valuation of partially used property	257
Going value allowances	257
Merchandising and jobbing expenses	257
Advertising expense allowance during war time	257
Expense allowance for officers' salaries	257
Expense allowance for war-time taxes	257
Return for electric utility	257

¶ These reports are published annually in five bound volumes, with an Annual Digest. The volumes are \$6.00 each; the Annual Digest \$5.00. A year's subscription to PUBLIC UTILITIES FORTNIGHTLY, when taken in combination with a subscription to the Reports, is \$10.00.

Titles and Index

TITLES

Orange & Rockland Electric Co., Re(NY) 257



INDEX

Depreciation—age-life ratio, 257.

Return—electric utility, 257; reasonableness, 257.

Expenses—accounting records, 257; advertising, 257; officers' salaries, 257; regulatory Commission expense, 257; war taxes, 257.

Valuation—accrued depreciation, 257; dam and flood rights, 257; going value, 257; non-utility land, 257; organization cost, 257; retired property, 257; rights of way, 257.



RE ORANGE & ROCKLAND ELECTRIC CO.

NEW YORK PUBLIC SERVICE COMMISSION

Re Orange & Rockland Electric Company

[Case 9403.]

Valuation, § 226 — Nonutility land.

1. The cost of land not used in electric operations should be transferred to "other physical property," in which account the company carries a rented house on the land, in a proceeding to determine the rate base, p. 270.

Valuation, § 202 — Retired property — Unused property.

2. Neglected or unreported retirements, or property no longer in service, should be charged against the depreciation reserve instead of being included in the original cost of property for the purpose of establishing a rate base, p. 270.

Valuation, § 119 — Arbitrary overheads — Result of appraisal.

3. Arbitrary overheads placed upon the books of an electric utility as a result of an appraisal, representing charges never incurred by the company, should be charged off to surplus instead of being included in the basis for rate making, p. 270.

Valuation, § 114 — Financing cost — Capital stock expense.

4. Items in organization account pertaining to capital stock issues should be transferred to "capital stock expense" or written off to surplus instead of being included in the basis for rate making, p. 270.

Valuation, § 143 — Organization cost — Arbitrary amounts.

5. Arbitrary amounts included in the organization accounts, set up in connection with a merger of constituent companies, should be excluded from the basis for rate making, and, in the absence of proof as to costs incurred upon organization, a reasonable amount may be included in the rate base to give recognition to the fact that upon organization some expenses properly chargeable to intangible property accounts would be incurred, p. 270.

Valuation, § 378 — Rights of way — Payment to subsidiary — Easements already owned and used.

6. A payment by an electric company to a subsidiary for rights of way over land purchased by the subsidiary subject to easements for existing lines already in the possession of the electric company should be eliminated from plant accounts for the purpose of determining a rate base, in the absence of evidence to show that any rights of way not already possessed were acquired, p. 271.

Valuation, § 134 — Overheads — Engineering — Unwarranted fees to officer.

7. So-called engineering fees of the president of an electric utility company in addition to annual salary and other payments, found to be unwarranted, should be eliminated and the original overheads actually incurred, applicable to surviving property, should be restored, p. 272.

Valuation, § 414 — Book accounts and rate base — Land rights acquired in merger.

8. Appearance of an item representing a payment for land rights acquired

NEW YORK PUBLIC SERVICE COMMISSION

in a merger on the books of an electric utility company does not require the inclusion of the item in the rate base, p. 275.

Public utilities, § 14 — Tests of status — Opposition to regulation.

9. Opposition to regulation by the Commission does not prove that an electric company later merged in an electric utility company was not legally subject to regulation prior to the merger, p. 275.

Public utilities, § 48 — Tests of status — Operation on private property.

10. Operation on private property does not mean that a company furnishing electricity has not devoted its property to the public service, p. 275.

Public utilities, § 12 — Property devoted to public service — Character following merger.

11. Property devoted to the public service by an electric utility company was held to have been devoted to the public service when it first was used by a former company, prior to merger with the electric utility, to perform the same service in a real estate subdivision, p. 275.

Valuation, § 378 — Land rights acquired in merger.

12. Land rights in a real estate subdivision formerly served by a company which was merged into an electric utility company should not be allowed as part of the rate base of the utility company in addition to physical property used to serve the real estate subdivision for which such rights are claimed, notwithstanding contentions that the highways in the area had not been accepted by the local authorities as public thoroughfares, p. 275.

Commissions, § 11 — Agreements as to rate base or records.

13. Neither the Commission nor an employee of the Commission is in a position to bargain with a utility as to what should or should not be included in a rate base or upon its books and records, p. 280.

Valuation, § 226 — Property not used or useful — Partial use.

14. Customers should not be asked to pay in rates charged for service any return on property not used and useful in supplying that service, and if some property is partially used or if an item of property has been constructed for a two-fold purpose, return should be allowed only on that part which is useful and which is necessarily used to provide service to the public, p. 280.

Valuation, § 232 — Dam and flood rights — Partial use — Land owned by affiliate.

15. The entire cost of flood rights and a dam, constructed to create an artificial lake on land owned by an affiliated company, where the land acquisition and the construction of the dam were not primarily for the purpose of supplying electricity, but the project was primarily a real estate development, should not be included in the rate base of an electric utility company using the lake to supply condensing and boiler feed water for a steam generating station used as a standby plant; but the maximum amount that can properly be allowed is the cost of providing other cooling facilities such as are in common use by steam plants where lakes, streams, and rivers are not available for this purpose, and consideration should also be given to the cost of operating the present facilities as compared with alternate means of producing the same effect, p. 280.

Depreciation, § 31 — Annual rate — Age-life ratio — Estimated life.

16. Current annual depreciation rates are proven to be too high—the estimated life is too short—when the age-life ratio shows that the average age

RE ORANGE & ROCKLAND ELECTRIC CO.

of some property groups has already reached or exceeded the calculated service life, p. 286.

Valuation, § 98 — Accrued depreciation — Method of ascertainment.

17. An estimate of accrued depreciation of electric utility property was approved when based upon judgment and experience, examination of the property, and studies of the company's experience with regard to retirements, on the theory that it is not possible to determine depreciation by observation and inspection alone, since inadequacy and obsolescence are seldom indicated by inspection alone; that depreciation is not limited to deferred maintenance; and that the fact that it is less easy and less accurate to measure the consumption of capital which has a service life of more than one accounting period does not justify its omission, p. 287.

Valuation, § 331 — Going value — Necessity of proof.

18. Going value of public utility property must be proved; it may not be assumed, p. 291.

Revenues, § 1 — Inclusion of nonoperating income — Deduction of interest and income taxes.

19. Reported net income is of little value in a rate proceeding when it is derived after the addition of nonoperating income and deduction of interest and income taxes which are affected by the nonoperating income—income which should be ignored in determining reasonable rates; an income account should be constructed upon the basis of the service furnished to the public, eliminating all income and operating expenses not connected therewith, p. 292.

Expenses, § 93 — Carrying charges on property — Unproven costs — Duplication.

20. Carrying charges on property of a subsidiary (classified as rents) pertaining to pondage rights and pole line and location permits, when not substantiated in the record and resulting in duplication (because of an original cost allowance for partial use of the pond), should be excluded from operating expense, p. 298.

Expenses, § 49 — Pensions — Gift to former officer.

21. A payment to a former president of a utility company which is not really a pension payment but a gift has no place in costs to be paid by consumers, p. 298.

Expenses, § 80 — Loss from merchandising and jobbing.

22. A loss resulting from merchandising and jobbing activities of an electric utility should be excluded from operating expenses, as the Commission has no authority to regulate charges for such service and a rate proceeding concerns only rates for service, p. 298.

Expenses, § 26 — Advertising — War conditions.

23. A substantial increase in advertising expense of an electric utility since the pendency of a rate case and during war conditions, when there is little need for advertising electric service, should be reduced to a reasonable amount as an operating expense, p. 298.

Expenses, § 28 — Accounting records — Nonrecurring items.

24. The cost of preparing continuing property records, nonrecurring in nature, should not be considered in fixing rates for the future except to the extent that costs will be incurred to keep them up to date, p. 300.

NEW YORK PUBLIC SERVICE COMMISSION

Expenses, § 92 — Regulatory Commission expense — Necessity of amortization.

25. Regulatory Commission expenses which are not of such magnitude as to require amortization should, except under unusual circumstances, be charged when incurred, p. 301.

Expenses, § 96 — Officers' salaries — Excessive amounts.

26. Only a reasonable amount should be allowed as an operating expense for a company officer who has received excessive amounts of compensation as indicated by comparative salaries paid by similar companies, p. 301.

Depreciation, § 14 — Basis — Book cost or original cost.

27. Annual depreciation accruals based upon book cost instead of original cost result in the overstatement of plant accounts, operating expenses, and other accounts to which the accruals are finally cleared, p. 305.

Expenses, § 114 — Federal income tax — Amounts of war increase — Return.

28. The present Federal income tax, representing in part an increase over prewar taxes, should not be split so as to place part of the tax upon the stockholder and part upon the consumer, but it is more equitable and practicable to consider the income tax as a cost of service and give weight to this course in determining return allowance, p. 308.

Return, § 87 — Electric utility.

29. A return allowance of 5½ per cent on the rate base of an electric utility was approved in view of a marked decline in returns upon investments generally and the return on common stock resulting from lower interest yields on bonds and preferred stock making up the capital structure, p. 310.

Return, § 26 — Factors affecting — Cost of living — Cost of money.

30. Actual cost of money as shown by proceedings before the Commission is better evidence of the rates of return necessary to attract and retain capital than any single element such as the cost of living, p. 313.

Return, § 22 — Reasonableness — Varying conditions.

31. No single rate of return is universally applicable to all utilities, to all localities, and to all times, but the rate of return should be varied as conditions vary, p. 318.

Return, § 24 — Reasonableness — Attraction of capital.

32. A fair rate of return is the rate necessary to provide the capital needed to develop and maintain an enterprise which is providently conceived, soundly financed, wisely engineered, efficiently administered, and rendering a service for which there is a public demand, p. 318.

Return, § 22 — Reasonableness — Rate base factors.

33. A fair rate of return is not independent of all other determinations made in deciding a rate case, but it may be affected by the elements it is supposed to include; amounts allowed in operating expenses to cover depreciation are closely related to the rate of return, p. 318.

Valuation, § 290 — Working capital — Determination of allowance.

Discussion of the method of determining a proper allowance for working capital, with a consideration of cash, billing and collecting practices, account receivable, prepayments, materials and supplies, account payable, and taxes, p. 288.

RE ORANGE & ROCKLAND ELECTRIC CO.

Return, § 20 — Amount — Rulings of Supreme Court.

Discussion, in opinion of New York Commission, of the required allowance for return in view of decisions by the United States Supreme Court, p. 314.

(VAN NAMEE and BRAY, Commissioners, dissent.)

[April 1, 1943.]

PROCEEDING on motion as to rates, charges, rules, and regulations for electricity; rate reduction ordered.

APPEARANCES: Gay H. Brown, Counsel (by George E. McVay, Assistant Counsel, and Raymond J. McVeigh, Principal Attorney), for the Public Service Commission; Elwood C. Smith, Monroe, Counsel for the Orange and Rockland Electric Company; Leland A. Smith, Monroe, Representative, Orange and Rockland Electric Company; E. F. Eichenberg, Monroe, Vice President, Assistant Secretary, and Assistant Treasurer, Orange and Rockland Electric Company; William A. Kehl, Monroe, Vice President and General Superintendent Orange and Rockland Electric Company.

MALTBIE, Chairman: This proceeding was instituted by order of the Commission dated January 11, 1938, directing an investigation as to whether the rates, charges, rules, and regulations for electricity sold and delivered by the Orange and Rockland Electric Company are unjust, unreasonable, unjustly discriminatory, or unduly preferential and, if so, to fix just and reasonable rates and charges. This is the first formal proceeding involving an examination of the rates of this company.

At the first hearing, on January 27, 1938, counsel for the company offered a document signed by the mayor of each village and the supervisor of each

town in the franchise territory of the company, containing the assertion that in their opinion the rates of the company were reasonable and generally satisfactory to the customers residing in the respective municipalities. This unusual document, apparently offered in an attempt to influence the Commission by the array of sixteen signatures of public officials, was drawn up during the month of January, 1938, by two employees of the company, Mr. E. F. Eichenberg, assistant secretary, assistant treasurer, and chief accounting officer, and Mr. W. A. Kehl, general superintendent, each of whom has since been made a vice president and director. It was testified that these two gentlemen originated the idea, discussed it only with counsel for the company, and that neither the president nor the vice president of the company had been consulted. Mr. Kehl personally obtained the signatures of the supervisors and mayors, none of whom refused to sign the document.

A hearing was scheduled for February 11, 1938, to afford the officials of the municipalities an opportunity to support the allegation that the rates of the company were reasonable, and each was requested to present the facts supporting this allegation known to him at the time he signed the document. Eight of the sixteen appeared

NEW YORK PUBLIC SERVICE COMMISSION

and testified at the hearing and letters were received from others. They produced no facts, but testified generally that any opinions they had were based upon conversations, upon lack of complaints of which they had knowledge, upon the electric bills paid individually or by municipalities of which they were officials, upon decreases in bills over past periods, and upon gross comparisons with amounts paid elsewhere irrespective of consumptions or conditions of service. Some had general knowledge of the charges paid either in amount or in unit cost per kilowatt hour, obtained from bills rendered to them; yet not even the chief accounting officer of the company could calculate the charge to be made under the applicable rate from the information on the bills and he admitted a customer could not compute what his charge should be from the bill presented.

Without exception, not one of the municipal officials appearing at the hearing had read the opinion of the Commission in Case 8793, knew what the income of the company was, what return the company was making, any facts as to the value of its property, or aught of the legal standard for reasonable rates fixed by the legislature of the state and "the law of the land." In fairness, it should be stated that, apart from one or two holding nominal amounts of bonds, none of the officials had any financial interest in the company. We shall see how correct they were in their assertion that the rates of the company were reasonable. Indeed, the company left these officials out on a limb by reducing rates soon after they testified.

To obtain the necessary facts for

the purposes of this proceeding, as well as to check the establishment of the continuing property record, the investigation already begun of the books, accounts, records, and property of the company was continued by the staff of the Commission working with the staff of the company. Notwithstanding the fact that by law the burden of proof is upon the company, the company presented only very limited testimony. The record comprises some 650 pages of stenographic minutes and 16 exhibits, not including certain annual reports of the company which were received in evidence by reference.

History of Company

The history of the formation and development of the company was reviewed in the Case 8793 opinion and in the memorandum approved by the Commission July 23, 1940, in the recent bond refunding proceeding, Case 10197, to which reference is made.

The company was incorporated March 30, 1905, under the Transportation Corporations Law. It thereafter took over and merged four corporations as follows:

	Date of incorporation	Date of acquisition	P. S. C. Case No.
Buttermilk Falls Electric Co.	1893	1917	*5922
Warwick Valley Light & Power Co.	1898	1919	*6457
Goshen Light & Power Co.	1891	1919	*6802
Tuxedo Electric Light Co.	1899	1927	2986

* Second District cases.

These acquisitions of property by merger and the construction of property by the company itself were financed in large part by the issuance of

RE ORANGE & ROCKLAND ELECTRIC CO.

securities. Up to 1911, the company had issued \$100,000 par value of common stock and \$37,000 principal amount of first mortgage bonds. The latter were refunded by first and refunding mortgage bonds of which \$172,000 principal amount were issued up to 1918, some \$50,000 being issued or pledged as security for part of the payment for the capital stocks of the Warwick and Buttermilk companies. There were also issued in part payment for the stock of the Buttermilk company \$12,000 par value of 7 per cent preferred stock; the company issued an aggregate of \$1,554,900 par value of such stock from 1916 to 1927, of which \$249,400 were authorized together with \$225,000 of serial notes to secure the funds for the purchase of the stock of the Tuxedo Company.

The actual procedure followed in acquiring the stock of these merged companies was sometimes rather involved. For example, part of the first and refunding mortgage bonds was issued to secure funds for the discharge of the major portion of a \$16,400 obligation for money borrowed to purchase stock of the Orange County Engineering Company, which company bought most of the stock of the Goshen Company. In 1919 the electric company acquired all of the stock of the Goshen Company preliminary to merger. To do so it issued \$7,000 par value of 7 per cent preferred stock to its president, returned the \$16,400 par value of stock to the Orange County Engineering Company and canceled a debt of \$6,600 owed to it by that company.

During 1923, the company issued an additional \$100,000 par value of com-

mon stock. In May, 1935, the 2,000 shares of \$100 par value common stock were reclassified into 40,000 shares of no par value common stock with a stated value of \$5 per share, 20 shares without par value being issued for each par value share then outstanding. This reclassification was never submitted to the Commission as required by law.

In 1928, the company was authorized to issue \$1,250,000 principal amount of 5 per cent first mortgage bonds to refund the former bonds still outstanding, to retire 5,549 shares of 7 per cent preferred stock, to discharge notes and accounts payable and to provide funds for new construction. These bonds were retired in 1935, in part by the issuance of \$1,185,000 principal amount of 4 per cent first mortgage bonds, of which \$32,000 were retired in 1938 at the direction of the Commission (Cases 4553 and 8551). The \$1,153,000 principal amount then outstanding were retired during 1940 when the company was authorized to issue \$1,150,000 principal amount of 3 per cent first mortgage bonds, dated June 1, 1940, and maturing June 1, 1965 (Case 10197).

From 1931 to 1934 the company issued \$588,800 par value of 6 per cent preferred stock, authorized for reimbursement of expenditures made and payment of debt incurred for capital purposes prior to September 30, 1927 (Case 4553). In 1935 and 1936, it issued \$900,000 par value of 5 per cent preferred stock, authorized to retire some of the 6 per cent and the remainder of the 7 per cent preferred stock then outstanding (Case 8504).

P. S. C.
Case
No.

*5922

*6457

*6802

2986

erty by
of prop-
were fi-
uance of

NEW YORK PUBLIC SERVICE COMMISSION

Reference has been made to the opinion in Case 8793, which detailed some of the dealings of the company in its securities. Certain securities were acquired by a subsidiary, O. & R. Electrical Supply Company, Inc., and others were issued in exchange for the stock of another subsidiary, Orange and Rockland Securities Corporation, which had been formed solely for the purpose of dealing in the stock of the electric company.

The latter subsidiary has since been dissolved and in 1936 the company re-acquired the 3,580 shares of its common stock held by these two subsidiaries, leaving outstanding 36,420 shares of common stock shown on the books at a stated value of \$5 per share, or an aggregate of \$182,100. On December 31, 1941, there were 35,204 shares outstanding, aggregating \$176,020.

As shown by the comparative balance sheet statements of the company on Table 1 following, it also has re-acquired some of its preferred stock from time to time. As of December 31, 1941, there were outstanding 3,704 shares of 6 per cent and 7,952 shares of 5 per cent cumulative preferred stock (annual report).

During the past few years, the company has applied for authority to redeem its 6 per cent preferred stock by the issuance of 5 per cent preferred stock (Cases 8844 and 10193), notwithstanding the fact that it had excess cash which should have been used to redeem its securities, such cash or equivalent funds being recorded in the account "temporary cash investments" as well as in the other invest-

ment and cash accounts on the balance sheets shown on Table 1.

It should be noted that the balance sheet accounts on Table 1 have been rearranged for comparative purposes according to the Uniform System of Accounts effective January 1, 1938. Additional income taxes for 1936 to 1938 in an amount of \$38,173.96 were assessed against the company, which assessment was contested. It was testified that during 1940 the matter was taken up with the Internal Revenue Department, and a deficiency assessment for the four years from 1936 to 1939, aggregating \$30,874.75, including interest, had been paid.

[Table 1 omitted.]

Control

The control of the company, claiming assets of some \$4,280,000, is vested in the relatively small amount of common stock (\$176,020). Nearly one-half of the common stock is owned by Roscoe W. Smith; over one-half is owned by Mr. Smith and his wife and over 27,000 shares are owned by Mr. Smith and his relatives. The list of the holders of 1 per cent or more as of December 31, 1941, is as follows (annual report, 1941): [List omitted].

The stock has been closely held for a long period of time, as is indicated by the following list of officers and directors (annual reports): [List omitted].

Payments of dividends on the common stock began shortly after the formation of the company, the amounts paid on the par value common stock being equivalent to the follow-

RE ORANGE & ROCKLAND ELECTRIC CO.

ing percentages for the various years (annual reports) :

1908 to 1911	5 %
1912	5½%
1913 to 1915	6 %
1916	6½%
1917 to 1919	8 %
1920 to 1922	10%
1923	8½%
1924 to 1934	8 %

The dividend of \$16,000, paid annually from 1924 to 1934, was continued in 1935 when the stock was reclassified, the further dividend payments being as follows (annual reports) :

	Par or stated value	Dividends declared	Rate per cent
1935	\$200,000	\$16,000	8%
1936	200,000	16,000	8%
1937	182,100	21,852	12%
1938	182,100	14,568	8%
1939	182,100	14,568	8%
1940	182,100	7,284	4%
1941	176,020	5,280	3%

Investment and Fund Accounts

Attention is directed to the large amounts shown on the balance sheet statement, Table 1, for cash and "temporary cash investments" and the relatively large "investment and fund accounts." Opinion in Case 8793 noted that, instead of retiring its stocks or bonds, the company used corporate funds for investments in affiliates and nonoperating property, loans to individuals and officers and for speculation in the securities of industrial and other concerns.

The latter securities, represented on the balance sheet statement in the account "temporary cash investments" although held for various periods up to five years, have now been disposed of, but the company has other large miscellaneous investments which may be summarized as of December 31, 1941, as follows (annual reports) :

Other physical property:	
Four houses at Tuxedo	\$19,257.97
Houses and lots at Monroe	17,964.15
Service station at Monroe	2,247.18
Fees for recording rights of way	4.78

Total \$39,474.08

Investments in associated companies:	
O & R Electrical Supply Company, Inc., mortgages	\$45,200.00
Preferred stock, 6% (3,868 shares \$25 par)	96,700.00
Common stock (1,000 shares \$25 par)	25,000.00
E. L. Walters, Inc.—no par common stock	20,000.00

Total \$186,900.00

Other investments:	
Appliance instalment notes, etc.	\$174.52
Stocks of local banks and societies	5,801.00
Mortgages	3,426.60
Total	\$9,402.12
Grand total	\$235,776.20

Other Physical Property

The property classed as "other physical property" is said to have been purchased for the use of employees or in connection with the acquisition or protection of land adjoining power plant or substation sites. For 1941, the company reported a deficit in net revenue, after expenses and depreciation, of \$218 on the nonoperating property carried on the books at nearly \$40,000. Peculiarly enough, the land on which some of the houses are located has been carried by the company as utility plant upon its books.

Investments in Associated Companies

The company listed investments in associated companies aggregating \$286,300 as of December 31, 1940, and \$186,900 as of December 31, 1941, and reported revenues from such investments of only \$5,129.69 during 1941, or 2.2 per cent on the average amount; \$2,375 of the revenue was

NEW YORK PUBLIC SERVICE COMMISSION

interest on bonds retired during the year. No return was received on the stocks listed above under this heading.

The O & R Electrical Supply Company, Inc., holds certain real estate, supposedly purchased to increase the size of the condensing pond, and to secure or protect rights of way for transmission lines and for houses of employees of the electric company (1941 report). The supply company has no employees; the electric company advances all funds and pays rental for certain of the property, the amounts shown on the balance sheets for "payables to associated companies" being chiefly due this subsidiary

The supply company is wholly controlled by the electric company, which acquired the preferred stock in 1930 to apply on open account indebtedness. The supply company had been organized in 1921 by individuals connected with the electric company. During the 9-year period from 1922 to 1930 when dividends on the common stock averaged more than $9\frac{3}{4}$ per cent annually, such stock of the supply company was held largely by three individuals, Mr. and Mrs. R. W. Smith and Mr. A. J. Crane. *After five years without dividends, this stock was sold at par to the electric company in 1935.*

The listed investment in the stock of E. L. Walters, Inc. represents the majority of the voting stock of that concern. It was formed in 1936 and is a distributor of refrigerators, ranges and appliances in the territory served by the electric company and adjacent territory.

The Orange and Rockland Electric Company formerly owned all of the

bonds of the Orange and Rockland Electric Company of New Jersey, a utility operating in the state of New Jersey, controlled by Mr. R. W. Smith and other officers or directors of the electric company. The New Jersey company also has no employees other than officers and all of the labor and materials necessary to its operation are supplied and billed by the electric company. The balance sheet at the end of 1939 showed \$130,000 of the bonds, but in 1940 bonds of a face value of \$35,000 were sold for \$36,750, and at July 1, 1941, the \$95,000 of bonds remaining with the electric company were called and retired at par (annual reports).

Amounts on the balance sheet at the beginning of 1940, and earlier, shown as "receivables from associated companies" represented unpaid interest on bonds of the New Jersey company and on mortgages of the supply company and the unpaid charges for labor and materials billed to the supply company and the New Jersey company. The balance sheets at the end of 1940 and 1941 showed no receivables from associated companies.

Other Investments

The "other investments," which were stated at \$27,914.02 at December 31, 1939, and on which the company accrued revenues of about \$2,200 during 1939, were decidedly reduced after the end of that year, mainly through the sale or redemption of some of the stocks and debentures of local banks, the payment of one mortgage, and a reduction in appliance notes receivable. On December 31, 1941, they stood at \$9,402.12; revenues were \$191.62 in 1941.

RE ORANGE & ROCKLAND ELECTRIC CO.

Territory Served

The company has its main business office and its main generating plant at Monroe and also owns a small hydroelectric plant at Tuxedo, Orange county. It purchases most of the electricity which it distributes in its franchise territory, comprising approximately 360 square miles and including the following : [List of towns, villages, and hamlets omitted.]

Electric Rates

When this proceeding was instituted in 1938, the electric rates charged by the company were covered by eight service classifications. One of these, applicable to residential service in Tuxedo Park, was canceled as of February 1, 1938. A complete new schedule containing seven service classifications was filed and made effective as of January 1, 1939, one intermediate power classification being eliminated and changes in other service classifications being made generally to comply with the requirements of the Commission for all electric companies as to the determination of demand for billing purposes.

Some changes have since been made and the rates in effect at present under the seven service classifications applicable to service throughout the entire territory of the company may be summarized as follows: [Schedules omitted.]

Except under the power and private street lighting classifications (SC Nos. 4 and 5), bills are rendered at the gross amount and discounted to the net amount if paid on or before a specified date some fifteen days from the date bill is rendered. Except under Service Classifications Nos. 4, 5 and

6, minimum charges for the entire year are payable in advance at the option of the company if service appears to be of a seasonal or temporary character. The term is one year unless service is taken under the company's line extension plan, in which event a longer term applies and minimum charges are determined in accordance with such plan.

In general, the listed headings indicate the use of service to which the various classifications are applicable. The residential classifications (S. C. Nos. 1 and 2) also are available for religious purposes, for accessory buildings or outdoor lighting and equipment used by the occupant on the same premises, and for an individual farm house together with buildings and equipment, separately metered or not, used by its occupant in the operation of the farm.

Service under the private street lighting classification (S. C. No. 4) is for a limited period, dusk to dawn or approximately four thousand hours annually, and the classification contains a number of special provisions. So also does the power classification (S. C. No. 5), which limits lighting service to incidental usage with the lighting demand not more than 20 per cent of the power demand, and requires the maintenance of a power factor of at least 70 per cent.

General and commercial customers (S. C. No. 3) may take cooking and other heating service under Service Classification No. 6 or No. 7 or both, and residential customers and commercial cooking or heating customers may take water heating service under the latter. The commercial cooking and heating classification (S. C. No.

NEW YORK PUBLIC SERVICE COMMISSION

6) limits use of service to such purposes, excluding the furnishing of heating appliance service from lamp sockets and of motor service unless integral and necessary to the operation of the heating apparatus. The water heating classification (S. C. No. 7) is for 60-cycle single phase alternating current, approximately 120 or 240 volts as determined by company, controlled by company so that energy cannot be used during the peak load periods, which shall not be less than seven hours per day, if water heater is used on same premises with electric range, when range load in use exceeds 1500 watts.

All of the classifications specify the type and character of service available and many contain special provisions as to term, metering, discounts under special conditions of metering or wiring or power factor, determination of demand for billing, and other matters not of general interest here.

Rate Reductions

The effect of the changes made in electric rates since the institution of this proceeding, as estimated by the company, may be listed as follows: [Table omitted.]

These reductions were made by the company without an order. While some schedules proposed by the company were suspended and while some changes were necessary because of the Commission's general order as to the determination of demand for billing purposes, no electric rate reductions have yet been ordered by the Commission.

Utility Plant

Ordinarily in rate cases considera-

tion must be given to the use or usefulness of certain property and often-times to conflicting opinions on market value of lands and reproduction cost new of other property. In this proceeding, the company has submitted no testimony purporting to show the value of its land or the cost of reproducing its other property as of any given date, apparently choosing to avoid the expense always occasioned by the presentation of reproduction cost estimates and related matters.

In fact the company presented no testimony as to the original cost, use or usefulness of, and accrued depreciation existing in its utility property as a whole, the small amount of testimony given by company witnesses being limited to certain isolated items in the exhibits prepared by the staff of the Commission and presented through Mr. B. W. Latham, principal valuation engineer, and Mr. E. R. Vavasour, associate accountant. These gentlemen testified as to inspections of the property and the examinations of the books and accounts made by them and their assistants beginning in the early part of 1938.

Mr. Latham stated that while the continuing property record had not been completed at the time of the investigation, it had been sufficiently advanced, checked by the Commission's staff and corrected to a point where it was considered more representative of original cost than the reported book costs. Although the company was still working on the continuing property record and making numerous small changes, these were minor in nature and insufficient in amount to make any appreciable difference in the final

RE ORANGE & ROCKLAND ELECTRIC CO.

results. Tentative balances were taken from the continuing property record as of December 31, 1936, as modified by the book changes for the years 1937 and 1938 and an exhibit was prepared showing these tentative balances and proposed adjustments thereto as of December 31, 1937 and 1938.

These data were brought up to date of December 31, 1940, by Mr. Willard F. Hine, consulting engineer for the Commission, as shown in Table 2. The first column of figures, derived from the company's continuing property record, differs from the book totals. The total of that column is \$3,700,213.19; the book balance at December 31, 1940, for plant in service and unclassified plant, combined, is \$3,676,008.45. As is apparent from the balance sheet statement (Table 1), the company has not yet classified its utility plant upon its books, which therefore do not reflect the continuing property record or the original cost of the property used and useful in the public service. [Table 2 omitted.]

The second column of figures on Table 2 summarizes the adjustments recommended by the staff of the Commission to be made to the continuing property record balances.

Most of the questioned items, adjustments, and recommendations of the staff had been taken up in discussion with officials of the company prior to the hearings at which the matters were presented, in an endeavor to reach an agreement upon facts and so limit the presentation of more detailed data to controversial matters. In the brief submitted on behalf of the company it is stated that the staff of the Commission and the company are not in disagreement as to the facts, but only

as to the deductions to be drawn from and applied to such facts. From statements initially made at the hearing, one would believe all of the matters were new to the company and had never been discussed with its officials.

From subsequent testimony, it appears that a conference was held in the company's office on December 6 and 7, 1939, between Messrs. Latham and Vavasour and Messrs. Eichenberg and Kehl. The latter testified they understood that the former were authorized to agree to adjustments to operating property accounts and the amount to be determined as to rate base. It hardly seems necessary to point out that although company and Commission representatives may examine and agree upon facts and so expedite formal hearing, only the Commission determines and fixes a rate base.

Mr. Latham testified that he understood the company representatives at this conference were authorized to speak for the company. However, while Mr. Eichenberg stated that he and Mr. Kehl were authorized by Mr. R. W. Smith to represent the company and that he and Mr. Kehl were both directors and so authorized themselves to represent the company, there was no meeting of the board of directors of the company to give such authorization.

Notwithstanding the fact that by law the burden of proof is upon the company, it offered very little testimony concerning any of the proposed adjustments. Its position with respect to many of these can be gained only from the cross-examination of Commission witnesses and statements made in the brief submitted.

NEW YORK PUBLIC SERVICE COMMISSION

Proposed Adjustments

[1-3] The adjustments submitted by the staff of the Commission may be classified:

	December 31, 1938	December 31, 1940
(1) Improper organization charges (account 301)	\$11,906.03	\$11,906.03
(2) John Giles parcel, Monroe, not used in electric operations (classified on C. P. R. as steam production land—account 310)	1,000.00	1,000.00
(3) Land and land rights and payments therefor not used in electric operations (classified on C. P. R. as transmission land and land rights—account 340)	29,892.93	29,892.93
(4) Neglected or unreported retirements, or property no longer in service	4,607.23	885.00
(5) Miscellaneous (\$297 classified on C. P. R. as distribution land and land rights to be transferred to "other physical property" and \$20 classified as office furniture and equipment to be charged to "earned surplus")	317.00	297.00
(6) Appraisal write-ups—various accounts	72,282.47	58,973.64
(7) Overheads (net deduction)—various accounts	276,984.45	255,503.42
(8) Tuxedo Park rights—accounts 320 and 350	184,700.00	184,700.00
(9) Monroe pondage rights and dam	162,433.26	162,433.26
Totals	\$744,123.37	\$705,591.28

Apparently, the only proposed change, among the first seven items, to which the company takes exception is the elimination of \$15,000 in the third item. However, the first as well as the third item requires some discussion. The second item represents the cost of land which should be transferred to "other physical property," in which account the company carries the house, rented to an employee, located on this parcel of land. The fourth amount above should be charged against the depreciation reserve and the fifth as indicated in the tabulation. The sixth item represents the remaining portion of arbitrary overheads placed upon the books as of December 31, 1923, as a result of an appraisal. The report prepared by the Commission staff recommends the transfer of this amount to the account "electric plant acquisition adjustments," but since this amount represents charges never incurred by the company, it should be charged off to

surplus, to which the credit was made when the write-up was originally entered.

Organization

[4, 5] In the account "organization" in the continuing property record, there were included several items aggregating \$240 pertaining to capital stock issues which should be transferred to "capital stock expense" or written off to surplus, as the company desires. The balance of \$11,666.03 represents the aggregate of arbitrary amounts set up in connection with the merger of some of the constituent companies, and the Commission staff recommended that these be charged off to surplus.

On cross-examination, Mr. Vavasour stated that these arbitrary amounts had been the subject of orders of the Commission. He agreed that while he had made no examination of the past organization costs of the company, the tentative adjusted balance of \$23.52 was rather small for a company of this size and that it would be proper to substitute for the arbitrary amounts he eliminated the actual or-

RE ORANGE & ROCKLAND ELECTRIC CO.

ganization costs of the company, if these could be ascertained.

The company offered no testimony whatsoever as to the costs incurred upon its organization. In view of the record and the fact that the company has failed to meet the burden of proof placed upon it by law, only the small \$23.52 balance remaining can be included in the cost figures to be placed on the company books. However, for the purpose of this proceeding and only for such purpose, an allowance of \$4,000 will be included in the rate base, not upon the basis of any proven original cost, but rather to give recognition to the fact that upon organization of a company today some expenses properly chargeable to intangible property accounts would be incurred.

Transmission Land and Land Rights

The third item in the foregoing tabulation is comprised of the following:

Part of parcel of land known as "Creamery lot," town of Harriman	\$8,292.93
Proportional part of cost of right of way for which privilege of joint use was granted—Middletown line	6,600.00
Payments to O & R Electrical Supply Co., Inc. for rights of way ..	15,000.00
Total	\$29,892.93

The elimination of the first two items was not questioned by the company. The Commission staff recommended that the first amount be transferred to "other physical property" and the remainder be charged off to surplus.

The "Creamery lot" was purchased in 1930 supposedly for a substation site to serve Tuxedo Park. No development for such purpose has occurred, and the present substation has adequate capacity for a long time in the

future. The Commission staff recommended retaining \$2,600 in the plant account as representing the cost of the part of this parcel used and needed for a transmission line crossing the land, and the transfer of the remainder (\$8,292.93) of the cost to "other physical property." There is no conflicting testimony.

With respect to the second item, the company owned and maintained on certain rights of way two electric transmission lines, one used in connection with the sale of current to Orange County Public Service Company, Inc., and the other for exchange of electricity with the Rockland Light and Power Company, with which the Orange County Company thereafter was consolidated. The Rockland Company paid \$140,000 pursuant to an agreement dated as of April 8, 1927, under which, among other things, the company agreed to release the Orange County Company from its agreement to purchase electricity and agreed to joint use of half the right of way by the Rockland Company, which intended to acquire additional right of way and build a transmission line generally paralleling the company's lines. The \$6,600 adjustment recommended by the Commission staff represents approximately half of that part of the cost of the right of way proportional to the portion for which joint use was granted. The company did not oppose this suggestion.

[6] The last item represents the amount, \$15,000, paid by the company to its subsidiary, O & R Electrical Supply Company, Inc., pursuant to an agreement dated as of April 3, 1929, under which, among other

NEW YORK PUBLIC SERVICE COMMISSION

things, the supply company granted the electric company the right to maintain existing transmission or distribution lines over lands acquired by the supply company. There were certain restrictions, including provisions for relocation of the lines upon interference with the development of the land, and the electric company also agreed to construct and maintain at its expense such distribution lines as the supply company might require for the development of its land.

The parcels over which these rights of way extended contained 230 acres and were purchased by the supply company for about \$19,307 subject to the easements for existing lines already in the possession of the electric company. Thus, the supply company purchased the land and then collected \$15,000, almost the full cost of the land, for easements *already owned and used by the electric company*.

Mr. Latham testified that in discussing this adjustment with company representatives they urged that consideration be given to other rights of way which the supply company conveyed without cost to the electric company. It appears that in the other situation brought to his attention, the electric company had rights of way across other lands used as farms, the rights being limited to the life of the poles thereon, and the owners of the farms refused to permit the company men to enter the premises to replace the poles. Rather than pay an exorbitant price to renew the rights of way, it was decided to purchase the farms outright and they were acquired in December, 1929, for \$34,000 by the supply company, which granted formal

rights of way without consideration to the electric company.

Mr. Latham first testified that in view of this situation, he thought the \$15,000 might be allowed to stand. However, he made no attempt to value the rights of way across these two farms and his subsequent investigation disclosed that the company had advanced \$4,500 to the supply company as part of the purchase price for one of the farms. The company capitalized the \$4,500 which now is included as part of the continuing property record balance and has not been eliminated from the tentative adjusted balances (Table 2) arrived at by the Commission staff.

In the brief submitted on behalf of the company, the argument seems to be advanced that the \$15,000, subject to a possible deduction of \$4,500, should be allowed to stand as representing certain rights of way not capitalized. The company presented no testimony as to any of these matters. There is nothing in the record to show that any rights of way not already possessed were acquired by the company for the \$15,000 paid to the supply company and this amount should be eliminated from the plant accounts. Neither is there anything in the record to show that the rights of way over the two farms cost the company more than the \$4,500 which is retained.

Overheads

[7] The seventh item is a net deduction covering overheads representing unwarranted fees paid to the president of the company, Mr. R. W. Smith, plus certain arbitrary overheads that were placed upon the books

RE ORANGE & ROCKLAND ELECTRIC CO.

in substitution for original overheads, less the amount of the original overheads applicable to surviving property. As of December 31, 1938, the remaining portion of the R. W. Smith fees was \$163,576.71, and the other arbitrary overheads amounted to \$119,917.20. The total of the two items was \$283,493.91. The original overheads considered to relate to property surviving at December 31, 1938, amounted to \$6,509.46. Mr. Latham testified that the first two classes of overheads (items 4 and 5 of Table 7) should be eliminated and the original overheads applicable to surviving property should be substituted therefor, and this was agreed to.

As of December 31, 1940, the R. W. Smith fees and other arbitrary overheads amounted to \$261,369.82, and the original overheads to be restored were \$5,866.40 (Table 16) the net deduction thus being \$255,503.42. In Table 2, these amounts are scattered through the various accounts.

The so-called engineering fees of the president, Mr. R. W. Smith, were discussed in Case 8793 (1937) [NY PSCR, 883, 886-889]:

"As of April 30, 1936, the company's balance sheet shows an entry of \$3,166,393.82 for operating property, which includes engineering fees paid to the president of the company between 1922 and July 1, 1935, amounting to \$253,548.54 less certain retirements. These fees were in addition to his annual salary as president and general manager and other payments hereafter referred to.

"Cross-examination of Mr. Smith developed that prior to 1905, when he was first connected with the Orange

and Rockland Electric Company, he had no engineering training or experience. He holds no degree from any engineering school, but has a license from the state of New York as a professional engineer issued February 10, 1925. But even prior to this date, he received from the Orange and Rockland Company very considerable sums for engineering services. In 1922, \$10,000 were so paid and in 1923 and 1924 \$55,370—all in addition to other large payments. . . ."

"Thus it appears that from 1922 to 1935 inclusive, Mr. Smith received from the Orange and Rockland Electric Company in salaries and engineering fees over \$500,000, or \$38,000 per annum. But this is not all as we shall see.

"While the hearings in this case were going on, the company passed a resolution, effective as of January 1, 1936, discontinuing the payment of engineering fees to its president and general manager and fixing a straight salary of \$36,000 a year.

"What engineering services did Mr. Smith render for the large fees he received?

"The counsel for the Commission called Mr. Smith's attention to each journal entry and voucher covering engineering payments to him, shown in the accountant's report, and asked specifically what services he had rendered. His answers consist of vague generalizations and he was unable to describe in any instance exactly what engineering services he had rendered.

"On February 3, 1937, counsel for the company requested a long adjournment to enable Mr. Smith or someone to make a more satisfactory explanation. An adjournment to May 19, 1937

NEW YORK PUBLIC SERVICE COMMISSION

—three and one-half months—was granted; but after this long opportunity to examine the records and refresh his recollection, Mr. Smith could add nothing material to his original weak efforts. His testimony was that he supervised engineering and construction. When asked specifically, about a substation for example his answer would be: 'I supervised the engineering and construction.' When asked if he had drawn any of the plans for transmission lines or distribution lines, he would state: 'I supervised the drawing of the plans.'

"Mr. Smith received his first engineering payment pursuant to a resolution of the board of directors, dated December 2, 1922. This resolution, moved by Mr. Keller and seconded by Mr. Durland, was that President Smith be compensated in addition to his regular salary for engineering supervision covering the installation of the new equipment at the station authorized in PSC Case 7051.

"The payments of engineering fees to Mr. Smith were all made pursuant to resolutions of the board of directors. Mr. Smith testified that he had not voted at any of the meetings of the board of directors; *but he was present at all the board meetings.*

"The court of appeals has held that the dominant shareholders and members of the board of directors may exercise a dominant influence at a meeting although not voting (*Globe Woolen Co. v. Utica Gas & E. Co. [1918] 224 NY 483, 121 NE 378*). The mere fact that a director does not vote does not relieve him of any responsibility.

"Another interesting practice disclosed was a payment or credit of \$40,-

488.30 to Mr. R. W. Smith for services and expenses in connection with the 7 per cent preferred stock issue. The following entry is shown in Exhibit 1 (page 22) :

Special services and ac- tual expenses of R. W. Smith, Agent, in connection with 7%	
Preferred Stock— 3% of \$1,554,800 ..	\$46,644.00
Less company pay- ments to brokers and others	6,155.70
	\$40,488.30

"When Mr. Smith was questioned as to the services he rendered for this payment, he said: 'I think, interviewing our people and making arrangement to sell the stock.' He said that he couldn't remember whether or not he paid employees of the electric company out of money he received, although he did testify that the employees did sell some of the stock by making contacts with people living in the vicinity of the company. When Mr. Smith was questioned as to the basis of his agreement with the electric company, he said that he could not remember.

"This is the case of an officer of a company being paid a commission on the sale of securities of his own company while at the same time receiving a salary as an officer of the company and a large fee for engineering supervision. But this is not all.

"Mr. Eichenberg, chief accounting officer of the company, testified that the board of directors of the company at the organization meeting each year approved the employment of R. W. Smith as the engineer in charge of construction, that in later years at the end of each month, a computation was

RE ORANGE & ROCKLAND ELECTRIC CO.

made up of the engineering charge for the month and that at the end of a stated period, six months or one year, these computations were compiled into a single voucher, and approved by H. H. Smith, an assistant treasurer of the company. The method of computation was to take 10 per cent of all construction charges to fixed capital except land."

The R. W. Smith fees and the other arbitrary overheads should be eliminated and the original overheads actually incurred applicable to surviving property should be restored. As of December 31, 1940, this amounts to a net deduction of \$255,503.42.

Land Rights—Tuxedo Park

[8-12] The eighth item in the adjustments is set up on the continuing property record in two accounts:

Land and land rights—	
Hydraulic production plant	\$36,252
Distribution plans	148,448
	<hr/>
	\$184,700

Mr. Latham testified that the \$184,700 purports to be the original cost to the company of rights it acquired at the time of merger of the Tuxedo Company, which rights dated back to an agreement of May 31, 1899 between the Tuxedo Park Association and Pierre Lorillard, Jr. This agreement was assigned by the latter to the Tuxedo Electric Light Company as of August 1, 1900, for 300 shares of its common stock. Mr. Latham stated it appeared that the \$184,700 was arrived at by multiplying the authorized purchase price per share, paid by the company for the stock of the Tuxedo Company, by the 300 shares of such stock given to Pierre Lorill-

lard, Jr., when he transferred his rights to the Tuxedo Company.

Mr. Latham stated he had not analyzed the transaction sufficiently to form an opinion as to what disposition should be made of the \$184,700, leaving it for the determination of the Commission.

Mr. Hine, however, testified that as a result of his examination, he did not believe that the \$184,700 was properly includable as a part of the electric plant in service.

Mr. Eichenberg claimed at a conference with the Commission staff that the Tuxedo Company was not a public utility at the time of its acquisition by the electric company and that the cost of its assets constituted original cost to the electric company as the corporation first devoting the property to public service. For this reason he believed the amount should be included in the continuing property record and the rate base.

The brief quotes parts of the orders of the Commission in Case 2986. The order of January 14, 1926, as amended February 28, 1928, authorized the company to acquire \$94,000 par value of stock of the Tuxedo Electric Light Company for an amount not to exceed \$450,000 as of June 30, 1925, authorized the issuance of securities to provide proceeds for such payment, authorized the merger of the company upon completion of the stock acquisition, directed the recording of the merger by consolidation of like accounts, directed endorsement of approval on the merger certificate, required reports on securities issued or pledged, required the filing of complete statements of entries made and effect of the merger upon the accounts of

NEW YORK PUBLIC SERVICE COMMISSION

the company, and contained four other clauses, one requiring acceptance of the order, the other three quoted in the brief being:

"11. That the Orange and Rockland Electric Company shall within a reasonable time after the consummation of the merger approved in this order, file with the Commission all such annual or other periodic reports as the Commission may be required by law to obtain or which it is empowered by law to exact and shall require, concerning its operations and financial or corporate transactions or those of the Tuxedo Electric Light Company during the period subsequent to the date of such report last filed and prior to the effective date for accounting purposes of the merger hereby approved.

"12. That the authority contained in this order is also upon the express condition that the petitioner, the Orange and Rockland Electric Company, accepts and agrees to comply in good faith with any and all orders heretofore made by this Commission affecting rates and service charged or to be rendered by the Tuxedo Electric Light Company.

"13. That this proceeding is hereby continued upon the records of the Commission until the examination which is now being made of the books, accounts, and property of the petitioner shall have been concluded and the corrections, if any, which by reason of such examination this Commission shall determine to be proper and necessary have been made, accepted by the corporation and entered in its accounts to the satisfaction of the Commission and the corporation shall file within thirty days of the receipt of this order a stipulation agreeing to

accept the value placed by the Commission upon the capital stocks of the Tuxedo Electric Light Company herein authorized to be acquired."

The brief concludes from these quoted clauses that the Tuxedo Company had failed or refused to file reports concerning its operations and financial or corporate transactions, had failed or refused to comply with orders theretofore made affecting rates and service and that the Commission had been powerless to compel it to comply because the company was a private utility not under the jurisdiction of the Commission. The brief then states that under such circumstances the property of the Tuxedo Company had not been devoted to public service before acquisition by the electric company and the cost of its property was original cost to the purchasing company.

To draw such a conclusion from the order of the Commission is wholly unwarranted. Neither the order nor anything in the record in this proceeding shows that the property of the Tuxedo Company was not devoted to public service prior to merger.

The order of July 31, 1928, in Case 2986 contained four clauses, one requiring acceptance and the other three quoted in the brief being:

"1. That the proposed journal entries contained in Schedule III of the final report of the accounting division in this proceeding, a copy of which shall be served upon the corporation, shall be entered upon the books of the Orange and Rockland Electric Company, and that within thirty days of the service of this order verified proof that such entries have been made shall be submitted to the Commission.

RE ORANGE & ROCKLAND ELECTRIC CO.

"2. That the amount of \$184,700 representing the value of certain rights and privileges being exercised by Tuxedo Electric Light Company (now Orange and Rockland Company) as of June 30, 1925, which rights and privileges are referred to in agreement dated May 31, 1899 between The Tuxedo Park Association and Pierre Lorillard, Jr. and assigned to Tuxedo Electric Light Company by certificate dated August 1, 1900, having a remaining life of forty-six years, shall be accumulated in its Retirement Reserve during the said remaining life of forty-six years by charging account 'Miscellaneous Deductions from Income' and concurrently crediting 'Retirement Reserve' in accordance with the following schedule:

Year ending December 31, 1928 ..	\$4,700.00
Years 1929 to 1974 both inclusive at the rate of \$4,000 per annum	180,000.00
Total	\$184,700.00

"3. That the amount of \$74,557.50 representing the excess of agreed purchase price, viz., \$450,000 over the value of 690 shares of common and 250 shares of 6 per cent preferred stock of the Tuxedo Electric Light Company; namely, \$375,442.50 as found by this Commission, shall be debited to the account 'Suspense to be Amortized' on the books of the Orange and Rockland Electric Company and shall be amortized by crediting that account and charging the account 'Miscellaneous Amortization Chargeable to Income' according to the following schedule:

Year ending December 31, 1928 ..	\$4,257.50
Years 1929 to 1947 both inclusive at the rate of \$3,700 per annum	70,300.00
Total	\$74,557.50

provided that the said company may amortize the said sum more rapidly than herein provided if it so desires by crediting the account 'Suspense to be Amortized' and debiting the account 'Profit and Loss Surplus' with the excess so credited over the amount required herein."

It appears that \$184,700 was set up in the land account and \$74,557.50 was set up in suspense, both of which amounts were to be amortized out of income. The company had written off the \$74,557.50 to income or surplus by the end of 1935. Against the \$184,700 amount, the company had set up an "amortization reserve" of \$40,700 as of December 31, 1937, and transferred this amount to its depreciation reserve in 1938; moreover since 1934 the company has charged the annual accruals of \$4,000 against operating expenses instead of against income, contrary to the terms of the order.

The brief contends that the order determined the value of land rights to be \$184,700 and cites the Public Service Law (Subd. 1, § 23) in the claim that the company is entitled to continue that amount in its land accounts unless and until such order is "changed or abrogated by the Commission," which the brief states cannot be done except by a direct proceeding in Case 2986. The brief also cites certain cases to support the claim that the order created rights and liabilities that may not now be justly ignored and that the prior determination cannot be disregarded when no fraud or irregularity has been shown [Tracy Develop. Co. v. Maltbie (1940) 259 App Div. 75, 34 PUR (NS) 393, 18 NY Supp(2d) 273,

NEW YORK PUBLIC SERVICE COMMISSION

aff'd (1940) 283 NY 500, 36 PUR (NS) 402, 28 NE(2d) 931; Lockport Light, Heat & P. Co. v. Maltbie (1939) 257 App Div 11, 29 PUR (NS) 180, 12 NY Supp(2d) 595], and claims that Case 2986 whether decided properly or otherwise is a bar to the consideration of the items in this proceeding, citing Barber v. Ellingwood (1910) 137 App Div 704, 708, 122 NY Supp 369.

The pertinency of these citations is open to question, but regardless of how the \$184,700 was accounted for, its appearance on the books does not require the inclusion of the item in a base for determining rates. No proof has been offered in this proceeding to show that the amount of \$184,700 represents any property now being usefully used in furnishing service to the public.

In Exhibit 1 (page 28), it is said about the alleged rights: "These are analogous to limited franchise rights except that they pertain to private property." The 300 shares of stock given Mr. Lorillard in 1900 for an "agreement" may have enabled the Tuxedo Electric Light Company to distribute electricity to residents in Tuxedo Park, but when the Orange and Rockland Electric Company merged the Tuxedo Company in 1925, there is nothing to indicate that anyone's permission was required for Orange and Rockland to serve the residents. Orange and Rockland itself asserts now that the operations in Tuxedo Park were on private property; hence no franchise from any local authority was required, and any payment to the Tuxedo Electric Light Company for alleged rights seems to have been essentially a payment for

prospective earnings based on the then existing rates. Any attempt to include this in a rate base would mean the capitalization against the consumers of the earning power that they themselves create. Orange and Rockland in 1925 saw fit to pay the Tuxedo Company an amount sufficient to cover the computed "value" of the alleged rights, and the Public Service Commission permitted this payment, but the Commission clearly recognized the distinction between the amount computed to have been paid for the rights and the cost of property that was related to operations. It provided that the \$184,700, "representing the value of certain rights and privileges," should be amortized out of *income* and not out of operating expenses. Hence the so-called rights were then not regarded as operating property.

The company stresses the claim that the Tuxedo Electric Light Company was purely a private concern, and that its property was not devoted to the public service. The chief grounds for this claim are that the company's operations were said to be entirely on private property and that the company had never filed reports with the Commission or admitted jurisdiction by the latter. The Tuxedo Company's opposition to regulation by the Commission does not prove that it was not legally subject thereto. There was no decision to this effect by the Commission or any other body prior to October 31, 1925, when the merger occurred; and the same operations, affecting the same customers and facilities as before, were then clearly recognized as subject to the jurisdiction of the Commission. Operation on private property does not mean that a

RE ORANGE & ROCKLAND ELECTRIC CO.

company furnishing electricity has not devoted its property to the public service. The Tuxedo Company was obviously engaged in the sale of electricity to the residents of a particular area. Since 1925, there has been no contention that the rates, service and other elements of the company's operations with regard to its customers in Tuxedo Park are not subject to the Commission's jurisdiction or that the property in that area is not devoted to the public service. If it is so devoted now, it was first so devoted when it first was used to perform the same service prior to the merger.

All of the tangible property now belonging to the Orange and Rockland Electric Company, whether in the Tuxedo Park area or in other areas supplied by the company, that is used and useful has been included in the inventory and in the accounts heretofore considered and passed upon. The hydroelectric plant near the Tuxedo Park station is included. There is no contention that any part of the physical property has been omitted. Thus, in substance, the company claims that it should be allowed \$184,700 as the "original cost" of rights to supply electricity in Tuxedo Park where apparently the highways have not been accepted by the local authorities as public thoroughfares.

If this claim were allowed, consumers in the Orange and Rockland territory would be required to pay a return upon such amount and presumably would be expected to amortize the "cost" over a reasonable period, although when the acquisition was authorized such amortization was not recognized as a proper operating expense. If Mr. Lorillard, to whom the

payment is alleged to have been made, owned the highways and thus could control who should supply electricity, it is obvious that he as a real estate developer would beg a company to provide service and not charge the company for the privilege; for if purchasers of building plots in this scattered territory could secure electricity at usual rates, the property would be worth more to the original developer than if no public supply of energy were available and prospective purchasers were obliged to resort to other means of securing power and illumination.

However, there is no proof that Mr. Lorillard or the Tuxedo Electric Light Company which he controlled had any "rights" that should be the basis of a charge to the consumers at present for which anyone paid any amount; and to permit these "rights" to be included in the rate base would be equivalent to requiring consumers to pay a return upon franchises publicly granted for which no compensation was exacted.

There is just one possible exception to these statements. In the property owned by the Tuxedo Electric Light Company and transferred to the Orange and Rockland, there was a small power plant at Tuxedo. The Orange and Rockland also obtained the right to use the water power which might be developed upon a small stream adjacent thereto. Since the transfer of this property to the Orange and Rockland, the character of the power plant has somewhat changed, but there is now a small hydroelectric power plant (250-kilowatt capacity). All of this property except possibly the land, including the right to use the

NEW YORK PUBLIC SERVICE COMMISSION

water, has been included in the original cost already determined, and there is nothing in the record to show that any other property cost the company any specific amount or that it has additional value. There is also no proof of any expenditure for this "other property" by the Tuxedo Electric Light Company and there is no basis for adding any specific amount for these alleged "rights."

But even if we were to find that the rate base should include any additional amount, a return thereon would be a charge against the consumers in the Tuxedo Park area and not a burden upon the consumers in the remainder of the territory, as these "rights" substantially apply to the Tuxedo Park area and not to other territory. It would be wholly unfair to include them in any rate base upon which the consumers outside of Tuxedo Park should be required to pay a return.

Lake at Monroe

[13-15] In the towns of Monroe and Blooming Grove, there is an artificial lake covering approximately seventy-three acres which is claimed to have been built to supply condensing and boiler feed water for the company's steam generating station. The total claimed cost is comprised of:

Pondage rights—Monroe steam station	\$15,000.00
Dam at Monroe steam station ...	147,433.26
Total	\$162,433.26

Both the dam, constructed by the electric company, and the lake are on land owned by the supply company. The electric company built the dam and paid \$15,000 to the supply company for pondage rights pursuant to an agreement dated October 4, 1923.

It appears that the flooded lands are part of 400 acres of land acquired by the supply company for more than \$50,000, in part as a real estate development and in part to provide additional pondage for power plant purposes. Under the agreement, the dam was to be built at the expense and risk of the electric company, and the construction equipment used (cost of \$24,692.67, included in the cost of the dam) was to become the property of the supply company, which was to have sole and complete control over the dam and lake. Pondage rights were to cease if the steam generating plant were not operated for one year, and the electric company was to erect distribution lines at its expense and install, maintain, and furnish current for a street lighting system along roads to be laid out by the supply company.

The agreement was amended as of November 18, 1936, to continue the pondage rights as long as the steam plant was maintained as a standby plant. It may be noted that the electric company had entered into a contract, extended to December 31, 1946, for the purchase of energy from the Central Hudson Gas & Electric Corporation and its steam plant is now operated only on order of and at the expense of that company.

Mr. Latham testified that the plant had been operating at full capacity during his inspection and the lake was used as a cooling pond. In his opinion, the dam was used and useful in electric operations, and the dam and lake constituting the cooling system represented good engineering. He understood that before the construction of the pond, the company had

RE ORANGE & ROCKLAND ELECTRIC CO.

used a spray system in a small cooling pond adjoining the plant, which facilities were considered inadequate; he had no personal knowledge of this, never having seen the original pond.

Mr. Kehl stated it probably would have been possible to enlarge the former small cooling pond, but he did not think it would have been practical because of quicksand around the plant. This ground condition had required piling to support a generator in the plant and had caused difficulties in placing proper foundations for other facilities.

Mr. Kehl also testified that at the conference with the Commission's staff, representatives of the company claimed the \$15,000 amount was proper for land and water rights. When asked if the company now asks that the \$15,000 be allowed, he replied that he "should think so, yes." He believed the item was proper based on experience with rights of way and land values, stating that the probable cost of condemnation would have been considerably more and that the \$15,000 was based on the cost of the approximate number of acres flooded. However, he did not know the acreage flooded, who purchased the land, what was paid for it and so could not support his judgment.

Mr. Latham did not believe he would have questioned the payment of \$15,000 for floodage rights in an arm's-length transaction with private owners for a comparable area, but from his study it was apparent the supply company expected considerable profit from the development of the lake frontage and there should have been at least some sharing of expense.

Under the circumstances, he did not believe the \$15,000 payment should be included in the continuing property record. In his exhibit he points out that the lake enhanced considerably the value of the real estate of the supply company, that apparently the creation of a lake was more to the advantage of the supply company than the electric company, *both of which companies were controlled by Mr. R. W. Smith*, that the payment of \$15,000 for pondage rights was not justified and should not remain in the continuing property record, and that the customers of the electric company should not be burdened with the entire cost, if with any part of the cost of the dam.

With particular respect to the dam, Mr. Latham stated that he had not believed the entire cost should be retained in the continuing property record and had felt that perhaps an allowance of one-half of the cost would be satisfactory. At the conference with company representatives when the contentions were made that there was no basis for not allowing the costs which were actual expenditures for a dam used and useful in the operation of the steam plant, he agreed to suggest that the entire cost be allowed to remain in the rate base in view of the company's acceptance of more than \$580,000 of the total of almost \$800,000 of adjustments in an attempt to find a satisfactory basis for settling the case. In other words, he would be willing to waive this item if his understanding were correct that the company would go along with the other adjustments. However, he again stated that considering the dam alone on the merits of the situation he did not

NEW YORK PUBLIC SERVICE COMMISSION

believe that the entire cost should be allowed.

The Commission and certainly an employee of the Commission is in no position to bargain with a utility as to what should or should not be included in a rate base or upon its books and records. Such books and records should record the reasonable original cost when first devoted to public service of property used and useful in the public service. Further, customers should not be asked to pay in the rates charged for service any return on property not used and useful in supplying that service; if some property is partially used or if an item of property had been constructed for a two-fold purpose, a return should be allowed only on that part which is useful and which is necessarily used to provide service to the public.

When Mr. Willard F. Hine, consulting engineer for the Commission was asked whether he believed that the total amount set forth in the company's books for the dam and pondage rights should be charged to electric plant in service, he replied: "In my opinion, no. I do not believe the entire amount should be."

On cross-examination, when asked his reasons for not including the entire amount for the dam he said: "The dam and pond were constructed on land owned by another company and the dam was to revert to this other company at such time as the plant might be shut down for a few years. Later that contract was revised and it looks to me as though it is pretty much of a mix-up between some kind of a real estate development and the plant, and I would not believe that the whole

amount could be charged to the plant in service."

He was asked whether the other company of which he spoke was not a wholly owned subsidiary of Orange and Rockland Electric Company and replied: "I don't remember that detail now and I don't think that it would make any difference to me."

When asked whether he had checked the records to ascertain whether the Orange and Rockland Electric Company is the sole owner of the stock of the supply company, he replied that he had done so but did not remember whether the electric company was the sole owner; he added that it did not appeal to him as anything to which he had to give any weight.

Mr. Hine stated that he knew the electric company would have to have water cooling facilities but could not say whether the property in question was assembled for the purpose of constructing the cooling pond. He did not know whether it was just as cheap for the company to buy the land in the name of the supply company as it was to condemn and acquire it from the individual owner. He agreed that the electric company constructed a dam on land in the name of the supply company and that the dam was to some extent used and useful in the electric service. He said, "The pond is being used and you wouldn't have the pond without the dam, but I certainly don't believe that the entire cost of that dam and that pond, as it is shown on the company's continuing property record, is a proper charge to the plant account."

He was asked why the cost of the dam is not a proper entry, so long as the company has the right to maintain

RE ORANGE & ROCKLAND ELECTRIC CO.

the dam and utilize the pond for all time, and stated in reply that, for illustration, if a utility company owned a building and stored two or three refrigerators on a certain floor they could say they were using the building but in his opinion it would not be chargeable to plant on that account. He thought it was necessary to consider the whole proposition. He did not believe that the company would need a pond of that size and said that the cost of the dam should be considered in connection with the size of the plant. He added that some question might be raised as to the used and useful character of the entire steam plant. Although he had made no special investigation of the point, he did not believe the company would need such a large pond. He did not know the depth of the pond and admitted that that would be an important item in determining its size. When company counsel pressed the point that the depth of water would be a very material item in determining the size of the pond, Mr. Hine stated: "Well, I did not think that it was a 6-inch pond. If they did that it would be a more ridiculous situation."

Mr. Hine agreed that it was good engineering to build a dam at a point where there was a narrow throat in land but said there might be considerable question as to whether it was good engineering to put the dam at the place where it was built, considering how much the dam cost and the conditions that were met. By these conditions, he referred to water that was encountered, greatly increasing the expense and difficulty of building the dam, according to information given him by company people. He did

not contend that anything should be deducted because of that natural condition although he thought it might have been possible to ascertain that condition before the dam was built. He was asked whether there was anything wrong with placing the dam where it was, assuming that test holes had been made every few feet apart over the entire proposed location before construction was started, and replied that if adequate investigation of conditions had been made he would say that there was nothing wrong from an engineering standpoint with locating the dam there, but he himself did not know what investigation was made or whether it was adequate, and stated that some one else would have to testify to that. When asked whether he had ascertained from company representatives that a civil engineer named Peter H. Bush made such tests and that he was the engineer in charge of construction throughout, he stated that he did not know.

In conclusion of cross-examination on this point, the following testimony was given:

Mr. Smith to witness:

Q. How much of that, Mr. Hine, do you say should not be included? What amount?

A. Well, I made no special estimate, myself. I don't know how it should be treated when you consider the land company and the utility there together, but I should think not more than a comparatively minor fraction of the total cost.

Q. Well, that is getting it down to pretty nearly nothing, isn't it?

A. I wouldn't want to make it very high considering the entire situation

NEW YORK PUBLIC SERVICE COMMISSION

there with respect to that power plant, the use that is being made of the power plant, or that was, certainly up to very recent times, and—

Q. Well, you are assuming a factor there, Mr. Hine, that did not exist at the time that the dam was constructed. At that time the power plant was in full operation, wasn't it?

A. I believe it was.

Q. And it is in full operation now, isn't it?

A. It was when I was there last. I don't know.

Q. Yes.

A. Not full operation—one machine was being run right along.

As the preponderance of testimony is clearly to the effect that the entire amount claimed should not be included in the rate base but that some amount should be allowed, I made a personal inspection of this property and saw the steam plant in actual operation. So far as the utility operations of the Orange and Rockland are concerned, there is no justification whatever for including approximately one-third of the cost of the land and nearly \$150,000 for building an earth dam. The acquisition of the land and the construction of the dam thus creating a lake were not primarily for the purpose of supplying electricity in that territory. Only a small part of the lake thus created is used for cooling purposes—considerably less than one-third. The project was primarily a real estate development, the need for water-cooling facilities being an excuse for charging against the public a portion of the cost of the enterprise.

The maximum amount that could properly be allowed would be the cost

of providing other cooling facilities, such as are in common use by steam plants where lakes, streams and rivers are not available for this purpose. Consideration would also need to be given to the cost of operating the present facilities as compared with alternate means of producing the same effect. However, there is nothing in the record which would furnish a basis for an approximation if this principle were to be applied. In view of all of the testimony submitted, it is necessary either to exclude the whole amount, because there is no definite basis for making an apportionment, or to adopt some figure which may appear to be arbitrary.

The total cost of the land and the dam is nearly \$200,000 and it is my opinion that the amount which should be allowed should not exceed one-fifth of this total figure or \$40,000, and I have included this amount in the rate base.

As the Orange and Rockland Electric Company does not own the land or any structures thereon including the dam (notwithstanding that it paid for the dam), there is no basis for including in the utility plant of the company any amount for the land acquired by the supply company or the structures thereon. In this connection, it should be kept in mind that the plant is now being operated for another company and that in case the plant ceases to be operated the electric company loses any rights or interest in the dam notwithstanding the payment of over \$160,000 to the supply company.

This whole matter calls for a readjustment. The supply company should refund the amounts paid to it and the electric company should pay a fair

RE ORANGE & ROCKLAND ELECTRIC CO.

rental for the use that it makes of the supply company's property. In determining this rental, Mr. Smith, who played such a dominant part in the arrangement, should not take an active part. Under the circumstances, there cannot be any arm's length bargaining between the two companies. The matter can only be determined by an independent person or body who has no interest in either company and who can decide the matter wholly upon the engineering factors involved. For the purposes of this case and this case only, the amount of \$40,000 is being included in the rate base.

Summary of Original Cost

Giving effect to the findings made and discussed in the foregoing, the allowed original cost of electric plant of the Orange and Rockland Electric Company used and useful in the public service as of December 31, 1940 was \$2,994,622.

The changes in the plant accounts during 1941 are shown in the annual report of the company and may be summarized as follows:

Additions—electric plant in service	\$118,661.76
Retirements—credit:	81,030.43
Electric plant in service	\$10,126.63
Unclassified electric plant	70,903.80
Adjustments—credit:	246.90
Electric plant in service	128.52(Dr.)
Unclassified electric plant	375.42(Cr.)
Net addition	\$37,384.43

These amounts are of course book figures. The retirements and adjustments were reported at book cost and not original cost and are, therefore, subject to revision. The amount cannot be determined from the record, but the net change would be small. The original cost as of December 31,

1941, may be taken as approximately \$3,032,000. This original cost does not include allowances for rate-making purposes of \$4,000 for organization and of \$40,000 in recognition of this company's partial use of the Monroe dam and pond.

Depreciation

Testimony with respect to examinations of the property, the accrued depreciation existing in the property and the provision made therefor through the accounting practices of the company was given both by Mr. Latham and Mr. Hine. Mr. Latham testified that he made extended inspection trips examining the property of the company, that he found the property generally to be in good physical condition and that the company maintained a complete record with maps of its lines and property.

The company has employed straight-line depreciation accounting since 1914 and has altered the annual depreciation rates from time to time. Table 3 shows the annual depreciation

percentages used by the company at the end of 1927 and in 1941.

[Table 3 omitted.]

In determining the total depreciation expense, it has been the practice of the company to apply the percentage each month to the book cost at the beginning of that month for the vari-

NEW YORK PUBLIC SERVICE COMMISSION

ous property accounts, exclusive of organization, intangibles, land, land rights, and rights of way. Accruals on transportation, stores, shop, and laboratory equipment have been charged to clearing accounts and accruals on other property to operating expenses. It is to be noted that the accruals have been applied to book cost which is not original cost.

Mr. Latham applied the annual depreciation percentages of the company to the tentative adjusted balances to obtain the annual depreciation for the plant in service at December 31, 1938. He also translated these depreciation percentages into service life in years, considering that on the average the salvage on property retired would equal removal costs. An analysis of the charges and credits made by the company to its depreciation reserves indicated that the removal costs equaled or exceeded the salvage realized, although an exact determination was impossible because the allocation of salvage and removal costs was by no means exact, material returned to stock being taken at current prices and reported removal costs apparently being low in some instances, indicating that some of the removal costs may have been included in plant or operating expense accounts or both.

[16] Mr. Latham also determined the composite weighted average age of the property groups by aging the dollars in the tentative adjusted balances according to the ages of the units of property as shown in the continuing property record. The age-life ratio, that is the composite weighted average age divided by the service life determined from the annual depreciation percentages, shows that the aver-

age age of some property groups had already reached or exceeded the calculated service life. This proves that the current annual rates are too high—the estimated life is too short.

As Mr. Latham stated, the annual depreciation rates should not be used as a basis for determining accrued depreciation without adjustment; even if the annual depreciation percentage is correct, the total service life for the surviving property would, in general, be longer than the average service life that is indicated by dividing 100 by the annual depreciation rate; and the direct ratio of age to average service life gives a percentage of accrued depreciation sometimes excessive. Mr. Latham testified that he gave consideration to this factor, that is, that some property would be retired before reaching the average service life, while other units would continue in service beyond the average service life, and also to the mortality characteristics of the property in determining the "reserve requirement."

As a result of this process, Mr. Latham found a reserve requirement as of December 31, 1938, of \$920,477 related to property having a cost of \$2,766,821, including, however, certain property which was not considered depreciable such as organization, franchises, land, and land rights.

Mr. Latham testified that his estimated reserve requirement gave the correct accrued depreciation for the cost figures used on the basis of the annual depreciation rates used by the company and the allowance he made for mortality dispersion. If the annual depreciation percentages are too high, the resultant reserve requirement is too high. If the cost figures are

RE ORANGE & ROCKLAND ELECTRIC CO.

changed, the reserve requirement should likewise be altered irrespective of any change in the annual depreciation percentages.

[17] An independent determination both of accrued and of annual depreciation was made by Mr. Hine, consulting engineer for the Commission. He testified that he had examined the company's books and records and personally inspected the property used by the company in rendering electric service. He defined depreciation as "the loss in worth or value due to all causes, including obsolescence, inadequacy, progress of the art, changes required by governmental authority, and all other elements which cause the ultimate retirement of property." He said that accrued depreciation was the total loss as to existing property up to the date of the valuation and that annual depreciation is that depreciation which has taken place in or has been apportioned to a single year.

He testified to his belief that it is not possible to determine depreciation by observation and inspection alone, partly because a major portion of the property of an electric utility cannot as a practical matter be thoroughly examined and inspected and also because many items depreciate without external evidence of that fact. Furthermore, inadequacy and obsolescence (factors that are often the most important in causing retirement of property) are seldom indicated by inspection alone. He said further that depreciation is not limited to deferred maintenance.

He stated that capital is being consumed not only in the case of things

that physically disappear during an accounting period but also in cases where the consumption is not complete, and that this consumption of serviceability is just as real as where there is complete consumption and should be reflected in any operating statement. The fact that it is less easy and less accurate to measure the consumption of capital which has a service life of more than one accounting period does not justify its omission from an operating statement, nor does it justify ignoring the fact that there has been consumption of such capital.

Mr. Hine set forth the results of his depreciation study in various tables in Exhibit 6. He determined the accrued depreciation as of December 31st of the years 1937 to 1940 inclusive (Tables 1 to 4 inclusive) and also tabulated the corresponding annual depreciation requirement as related to the same amounts for electric plant in service at the end of each of the four years mentioned (Table 5).

He testified that the amounts set forth were his estimates based on judgment and experience, his examination of the company's property and his studies of the company's experience with regard to retirements as derived from its books and records. He paid special attention to the retirements during the period 1938 to 1940 inclusive, these being set forth in his exhibit (Tables 8 and 9).

His estimates of depreciation were made on the straight-line basis, using his estimates of weighted average service lives and of salvage for the property in the various plant accounts, together with the weighted average ages as determined by a study of the

NEW YORK PUBLIC SERVICE COMMISSION

company's books and records, and giving what he believed to be adequate consideration to the mortality characteristics of the various kinds of property included in the plant accounts. He included no depreciation on accounts organization, franchises and consents, land and land rights, and clearing land and rights of way. Most of these, in his opinion, were nondepreciable. However, he stated his belief that rights of way for transmission lines, etc., and expenditures for clearing lands and rights of way are depreciable; but he included no estimates for such depreciation because it would be very difficult and expensive to obtain the basic figures and the amount involved was too small to justify the expense. He did not believe the accuracy of the total depreciation determination would be materially affected.

His estimates of annual depreciation requirements were based on the same service lives and the same salvage value as used in arriving at his estimates of accrued depreciation.

The following table gives the annual and accrued depreciation determined by Mr. Hine in relation to the original cost of plant in service at December 31, 1940. (Tables 4 and 5).

[Table 4 omitted.]

The accrued depreciation as of December 31, 1941, would be somewhat greater, according to the following computation, using the additions and retirements for 1941 from the annual report without adjustment:

	Accrued depreciation at Dec. 31, 1940	\$759,535
Add:		
Accrual for one year (based on balance at Dec. 31, 1940)	117,429	
Accrual for half year on 1941 additions (at approximate average annual rate of 4%)	2,373	
		\$879,337
Deduct:		
Retirements for 1941	\$81,030	
Accrual for half year on 1941 retirements (at 4%)	1,621	82,651
		\$796,686

Taking the original cost at December 31, 1941, as \$3,032,000 and deducting depreciation of approximately \$797,000 leaves \$2,235,000. The average original cost less depreciation, for the year 1941, is \$2,235,000.

Working Capital

The only complete evidence as to the working capital required for the company's utility operations was that given by Mr. F. T. Mylott, consulting accountant, who has prepared estimates of working capital requirements for many utility companies. The brief submitted on behalf of the company points out that testimony was given also by Mr. Latham, but he did not have all of the necessary data.

Mr. Mylott reviewed the various methods used in estimating working capital and explained why it was impossible to estimate properly the working capital requirements of any company from its balance sheet statements only. He made a thorough analysis of cash, billing and collecting practices, accounts receivable, prepayments, materials and supplies, accounts payable, and taxes in estimating the operating working capital require-

RE ORANGE & ROCKLAND ELECTRIC CO.

ments of the company for the year 1939 as follows:

Operating expenses advanced	\$30,000
Power purchased	6,500
Materials and supplies	50,000
Prepayments	1,500
Cash	20,000
Accounts payable—credit	2,500
Taxes—credit	22,500

Total	\$83,000
-------------	----------

Mr. Mylott found that during 1939 the company carried its customers forty-eight days on the average from the date of furnishing service until it was reimbursed for such service and that it accordingly carried the various elements of operating expenses for the following periods:

	Days	Per cent of year
Operating expenses—labor ..	37½	10.27
Operating expenses—other ..	48	13.15
Purchased electricity	13	3.56

The company paid its employees approximately ten and one-half days after the average date of furnishing service, and thus was required to advance funds for payroll purposes for a shorter period than for other expenses. Although the contract for electricity purchased from Central Hudson Gas & Electric Corporation provided for payment by the tenth of the month following delivery, the company actually paid the charges in instalments, in general one-third on the fifteenth, one-third on the twentieth, and one-third on the twenty-fifth of the following month. Consequently, the company was required to advance for purchases of electricity, funds equivalent to an average of only thirteen days' supply.

To determine the first two items in his estimate, Mr. Mylott applied these results to the operating expenses as adjusted in the exhibit presented by

the Commission staff, excluding only depreciation expense, for which no funds had to be advanced. Recognizing that working capital cannot be determined irrespective of other findings, he stated that if any adjustment be made to the operating expenses used, his working capital estimate should be adjusted accordingly.

Mr. Mylott, followed a similar method in determining the last item in his estimate, the credit for taxes. Naturally, if revenues are received from consumers before it is necessary to pay the taxes which are part of the cost of service, the company has use of funds furnished by its consumers and to that extent the consumers, not the investors, furnish working capital. In estimating the tax funds which the company used for working capital purposes before it was required to pay the various taxes assessed against it during 1939, Mr. Mylott considered each class of tax separately and determined the average interval which elapsed between the date of tax payment and the date the company was reimbursed by its customers.

Mr. Mylott made no allowances for other accounts receivable. His examination showed that the balances due from associated companies, other than for electric energy, represented interest on mortgages and bonds and charges for labor and materials. He stated that the balances due from associated companies for labor and materials should include an allowance for the period the company is required to tie up funds for such purposes and the electric customers should not be asked to pay a return on such amounts. The interest balances due represent

NEW YORK PUBLIC SERVICE COMMISSION

nonoperating revenue and have no bearing on the electric service furnished to customers, which is also true of the merchandise and jobbing activities of the company.

In addition to the allowance included in the first item of his exhibit for materials and supplies actually consumed during 1939, Mr. Mylott added \$50,000 for reserve materials and supplies based on the average monthly balances, excluding repair parts and installation materials which the company carried in connection with its merchandise and jobbing activities, and also the coal supply which was furnished by the Central Hudson Gas & Electric Corporation during 1939. He testified that his allowance was excessive because construction as well as operation materials were included. The consumer will be required to pay a duplicate return if the company capitalizes interest during construction on materials used for construction purposes and at the same time is permitted to earn a return on the construction materials as part of its operating working capital requirements, but segregation of the operating and construction materials was impossible.

The amount shown for prepayments represents an estimate of the funds the company was required to advance for prepaid insurance, rentals, and licenses, all of the prepaid items except taxes separately considered. The amount shown for cash was Mr. Mylott's estimate of the cash funds the company was required to advance over and above his estimate for all other elements of the operating working capital requirements.

He stated that having made allow-

ances in other items for operating expenses, materials, and supplies and advances, ordinarily it would be necessary to include in addition only a reserve for cash to be used for emergencies, for freight and express charges and for general petty cash needs. In this instance, the company was required to maintain a balance of \$3,000 in cash in each of three banks, in return for which the banks acted as collection agencies, receiving the payments, receipting the bills, placing the cash to the credit of and rendering a daily statement to the company.

Mr. Mylott later stated that the company utilized four other banks as collection agencies and during 1940 maintained a minimum balance of \$5,000 in each. It was his understanding that there were no written agreements and no requirements as to minimum balances, but that the company considered the earnings on the maintained minimum balances would compensate the banks for costs incurred in connection with the collection of accounts.

He stated this would make no change in his estimates of working capital. He agreed under cross-examination, that if there were agreements whereby the company is required to maintain minimum balances in these banks and company officials later testified to that effect, he would consider changing the cash allowance included in his estimate of the operating working capital requirements. Although company officials later appeared as witnesses, there was no testimony given by them as to the balances maintained in any banks.

Mr. Mylott also stated that the company maintains a larger balance

RE ORANGE & ROCKLAND ELECTRIC CO.

in another bank against which all payroll checks are drawn and in which are deposited customers' checks received by mail. The company pays all of its employees by check and these are cleared through this one bank. Mr. Mylott stated this situation did not affect his estimates; if he included an additional allowance in his item of cash funds it would duplicate the allowance made in the item of operating expenses for funds advanced for payroll purposes.

The company had accounts in ten banks, one in New York city and the others scattered throughout its territory. The banks have the use of such funds but pay the company no interest on the balances maintained. As has been noted, the company has the use of tax funds collected through charges to customers long before the taxes assessed must be paid. Obviously, to include the average bank balances would duplicate other allowances made in the working capital estimate and would require the consumers to pay a return on funds accumulated out of revenues for all corporate purposes including the payment of interest and dividends.

Mr. Mylott agreed that, had the company fulfilled the requirements of its power purchase contracts and paid the charges by the tenth of the month, his estimate of funds necessary for purchases of electricity would have been larger. Naturally, if the payment dates were changed in any way, his estimates also should be changed; but he used the actual dates upon which the company made payments.

Changes in operating expenses, taxes, and other items upon which Mr. Mylott based his figures may have

an effect upon working capital and to be meticulously correct all such changes should be weighed and their effect upon working capital determined. As will be seen in the following pages, a number of revisions have been made, nearly all of which are downward. Upon the other hand, certain items of cost have increased as compared with the year 1939 which Mr. Mylott used in preparing his estimate. But taxes, which are not payable in advance but which are included in the cost of service and therefore in the rates paid, have increased. These would tend to reduce the amount of working capital which the company has to provide, because the portion of the rates paid for such taxes are collected considerably in advance of the time when they are actually payable to public authorities. The net effect of all of these factors when properly evaluated would certainly not be to increase the amount of working capital needed but probably to reduce it. However, for the purposes of future rates, the amount testified to by Mr. Mylott will be accepted without change.

Rate Base

[18] In the preceding pages, I have reviewed the testimony relating to the various elements of the rate base. As stated, the company presented no evidence on the market value of its land or the reproduction cost new of its other property. Further, it has not claimed that any allowance should be made for going value, which must be proved; it may not be assumed.

The original cost figures hereinbefore considered include amounts for property paid for by others and prop-

NEW YORK PUBLIC SERVICE COMMISSION

erty in which the company has not made an investment. They also include the cost of property (services) located on private property, which the company does not own. The company has received or constructed property from contributions reported in the balance sheet accounts, "customers' advances for construction," and "contributions in aid of construction" (Table 1). Either the advances and contributions must be deducted in determining a rate base or the property must be excluded from the original cost figures. Following the usual practice of the Commission, all of the property is included, but the advances and contributions should be deducted.

The data hereinbefore discussed are summarized in Table 5. On the basis of these figures, it appears that the company was entitled to earn a return on an amount not in excess of \$2,245,000.

Reported Income

[19] During the five years preced-

ing 1942, the operating revenues increased annually, but the reported revenue deductions also increased except for a slight drop in 1941 below 1940. The reported operating income diminished in 1938, showed an increase in 1939, declined again in 1940 and increased appreciably in 1941 as shown in Table 6.

For the purposes of this case, the reported net income shown is of little value, as it is derived after the addition of nonoperating income and deduction of interest and income taxes which are affected by the nonoperating income—income which should be ignored in determining reasonable rates.

Further, the figures given are not strictly comparable because of different accounting practices. Prior to 1938, the company credited revenues from property classified as "nonoperating property" or "other physical property" to clearing accounts.

It is necessary, therefore, to construct an income account upon the basis of the electric service furnished

TABLE 5—RATE BASE SUMMARY

	1941 AVERAGE	
Original cost less depreciation	\$2,235,000	
Less:		
Customers' advances for construction:		
Jan. 1, 1941	\$60,517.60	1941
Dec. 31, 1941	64,377.10	Average
	<hr/>	
	\$124,894.70	\$62,447
Contributions in aid of construction:		
Jan. 1, 1941	\$54,377.53	
Dec. 31, 1941	54,574.50	
	<hr/>	
	\$108,952.03	54,476
	<hr/>	
	\$116,923	say
	<hr/>	117,000
Allowance for organization	\$2,118,000	
Allowance for partial use of Monroe dam and pond	4,000	
Working capital	40,000	
	<hr/>	83,000
	\$2,245,000	

RE ORANGE & ROCKLAND ELECTRIC CO.

to the public, eliminating all income and operating expenses not connected therewith.

Operating Revenues

The reported operating revenues are shown upon Table 7 from which it appears that each year showed an increase over the preceding year notwithstanding the rate reductions made during the period.

Average rates, even by classes, are not an infallible indication of rate changes. The distribution of con-

sequently to the increase in the average revenues received from sales to public authorities and other electric utilities, particularly the latter where the average charge increased from .9 cent per kilowatt hour in 1939 to 1.35 cents in 1940 and 1.29 cents in 1941. The sales to other electric utilities were chiefly to the Orange and Rockland Electric Company of New Jersey, the average charge to which increased from 1.21 cents in 1939 to 1.35 cents in 1940 and 1.28 cents in 1941.

TABLE 8—REPORTED REVENUES PER KILOWATT HOUR, 1937-1941 (CENTS)

	1937	1938	1939	1940	1941
Residential Sales	5.38	5.08	4.97	4.81	4.58
Commercial and Industrial Sales	3.87	3.66	3.37	3.35	3.30
Public Street and Highway Lighting	6.45	6.63	6.18	5.93	5.89
Other Sales to Public Authorities	2.75	2.60	2.44	2.68	2.90
Sales to Other Electric Utilities	1.35	1.13	.90	1.35	1.29
Sales to Railroads and Railways .....	....	3.00	3.00	....	....
Other Sales .....	....	6.77	6.65	6.75	7.00
All Sales	4.33	4.11	3.50	3.88	3.76

sumptions by blocks may change, and even though the rate schedule remains the same, the average rates will be affected if there is a change in the block distribution. However, Table 8, which sets forth the average revenues per kilowatt hour for the 5-year period, is interesting and throws considerable light upon a number of phases.

[Tables 6 and 7 omitted.]

For example, the average price paid per kilowatt hour for residential service declined from 5.38 cents in 1937 to 4.58 cents in 1941. Commercial and industrial sales showed a decrease from 3.87 cents to 3.3 cents. The average revenues for all classes of service decreased from 4.33 cents to 3.76 cents. In 1940, the average for all classes of service increased over the average for 1939; and 1941, although less than 1940, was greater than 1939. This peculiarity was due

The segregation of revenues is not exactly according to rate service classifications, the reported residential sales including part of the revenues derived under Service Classification No. 7 in addition to those under Service Classifications Nos. 1 and 2. The reported commercial and industrial sales include most of the other revenues derived from service supplied under the filed rate classifications, except that the amount shown for "other sales" represents part of the revenues derived under Service Classification No. 4 and since 1939 part of the revenues from Service Classifications 3, 4, 5 and 6 was credited to "other sales to public authorities" (annual reports).

Electricity Sold to and Purchased from Other Utilities

The revenues from "sales to other electric utilities," as reported in the

NEW YORK PUBLIC SERVICE COMMISSION

annual reports of the company, are detailed in Table 9 which also shows comparable data on purchases from other electric utilities. While the annual reports indicate that most of these exchanges are covered by contract, the record in this proceeding contains little information concerning the basis of the charges. As already noted, the Orange and Rockland Electric Company of New Jersey is controlled by Mr. R. W. Smith and other officers of the New York company, which not only furnishes the New Jersey company with its entire supply of electric energy, but also carries on its construction, maintenance and other operations. The New Jersey company has no office and no employees, all services being rendered by the New York company.

According to the exhibit presented by the employees of the Commission, construction, operation, and maintenance charges (exclusive of general office costs) have been billed to the New Jersey company at actual cost with nothing added for general supervision, general office salaries, supplies or expenses. A fixed amount has been charged each month for office labor plus actual postage costs for mailing bills. Electric energy has been billed monthly on the basis of 200 per cent of cost for the first 30,000 kilowatt hours and 133½ per cent of cost for the remainder, the cost used being that indicated by monthly charges to operation and maintenance accounts for production expenses and costs of purchased energy, together with depreciation charges for steam and hydroelectric plants.

As shown on Table 9, the purchases from Central Hudson Gas & Electric

Corporation increased decidedly beginning January 1, 1938, the effective date of a new power purchase contract under which the company purchases the bulk of its electric energy requirements. As has been noted, the steam station of the company is now operated only on order and at the expense of Central Hudson Gas & Electric Corporation.

[Table 9 omitted.]

Falsification of Bills

The revenues of the company are below what should have been collected because of fraudulent or intentional undercharging of consumers in one district. Elsewhere herein there is reference to the discharge of the manager of the Goshen district on April 8, 1941. Mr. Vavasour, a Commission accountant, and assistants made a special investigation of this incident. The facts developed were tabulated and testified to by Mr. Vavasour. For the month of March, 1941, he compared the meter readings which had been entered on the company's meter books with special meter readings which the company had made at the time. His investigation disclosed that of 1,288 meters in the Goshen district on March 31, 1941, the accuracy of the meter books was questionable in 408 cases. He determined that for 248 meters there was a total shortage of 54,393 kilowatt hours. This number included 223 in residential service, 22 in commercial service, and 3 for water heating. He applied the average price per kilowatt hour as experienced by the company in 1940 to the shortages in kilowatt hour for these three groups and obtained \$2,512.21 as an estimated loss in revenue to the com-

RE ORANGE & ROCKLAND ELECTRIC CO.

pany for the month in question. There were also various cases of overages. The company made allowances totaling \$40.85 to seven customers, who complained as to their April, 1941, billings, and further overages were indicated for 103 meters involving 8,291 kilowatt hours which at average 1941 prices might have involved a future adjustment of some \$374 if the situation had been allowed to continue.

It was found that in the case of 120 meters the meter cover seals had been found tampered with; four meter covers had no seals and in one instance there was no seal on the meter terminal and the neutral wire had been disconnected, current consumed not being registered. There was thus a total of 125 meters as to which seals had been tampered with or were missing, seventy-four of which were among those mentioned above, as to which shortages or overages were found.

Mr. Vavasour also made an effort to ascertain how long this condition had continued. He traced the meter records for the customers involved as far back as they had the same meter in service and compared the actual meter readings made at the time of special periodic tests with the reported meter reading for the date nearest to that of the special test. This study indicated that the discrepancies extended as far back as 1932 in two instances, although in most instances they did not precede 1938. In general, these data though meager indicated that the discrepancies came into existence chiefly in the period from 1938 to 1941. (Table B.)

Exhibit 16 also shows details by

customers and meters, the reported meter readings in kilowatt hours for March and April, 1941, the arbitrary number of kilowatt hours that were billed for April, and the discrepancies which were shortages in sixty-nine instances and overages in ten. For this group of seventy-nine customers, the shortages totaled 41,060 kilowatt hours and the overages 3,007. Previous test readings were also compared in this table with the reported readings at approximately the same dates, indicating that discrepancies went back for a number of years.

Tests were also made in coöperation with the supervisor of the company's meter department as to the accuracy of meter readings in other districts by making special test readings for approximately 20 per cent of the meters in each district in January and February, 1942. This showed only one discrepancy.

The evidence reveals that a serious situation existed in the Goshen district for a number of years. It is impossible to know the exact amount of revenue which the company lost through mismanagement or worse in that district. Exhibit 16 indicates that the loss due to shortages for the month of March, 1941, was approximately \$2,500. If similar shortages occurred in the entire year 1940, the revenue loss would have been approximately \$30,000 offset in a minor degree by overages.

The situation seems to have been corrected so that the 1941 revenues would be deficient only to the extent of about three months or possibly \$8,000. It would seem that the deficiencies in 1939 and 1940 were very much greater. The revenues for 1942

NEW YORK PUBLIC SERVICE COMMISSION

should be on a correct basis, but the figures are not yet available.

Operating Expenses

Table 10 shows in condensed form by functional groups the operating expenses, 1937 to 1941, as reported by the company, except for two adjustments to make the figures for the first year comparable in so far as possible. Depreciation charges then included in the various groups have been eliminated, and charges for uncollectible bills shown separately in that year have been included in the customers' accounting and collecting expenses.

However, the amounts shown for "electric generation—steam" and the kilowatt hours generated are not comparable. The annual report for 1937 contains statements to the effect that the plant was shut down or operated as a standby plant for large portions of the time and fuel used was mainly for banking and heating purposes. The 1938 annual report contains a statement to the effect that coal used was largely for standby purposes, the energy produced for Central Hudson Gas & Electric Corporation being produced with fuel belonging to that company.

[Table 10 omitted.]

According to the exhibit submitted by the Commission staff, the steam generated was also used to supply heat for the main office, garage, and storehouse buildings adjoining the plant, and the company made no attempt at segregation between generating costs and heating costs until September 15, 1938. Further, the reported expenses included unusually high maintenance charges in 1937 when the company did considerable overhauling of the plant

pending the new power contract with Central Hudson Gas & Electric Corporation. In 1938, only 172,700 kilowatt hours were generated for the company's use, mainly during periodic operation of the plant and during the short interval when the Central Hudson feeders were being reconnected; the remaining 267,700 kilowatt hours were produced for the Central Hudson company and included in the kilowatt hours sold to and purchased from that company. Apparently a somewhat similar situation applied in the subsequent years. The annual report for 1939 contains a statement that the plant was connected to the load for 1,353 hours, held in hot reserve 2,847 hours, and in cold reserve 4,560 hours. The report for 1940 shows much the same data. The 1941 report does not give this information, but the high coal consumption (2.08 pounds) per kilowatt hour indicates a largely standby condition. The consumption per kilowatt hour was reported as 2.08 pounds in 1940 and 2.14 pounds in 1939.

The reported hydroelectric generation costs have also varied widely, the variation being largely in reported maintenance costs. The increase in transmission expenses in 1939 was also mainly in maintenance expenses, but the 1940-41 increase was in operation of the lines. The increase in distribution expenses in 1941 came chiefly in operation supervision and engineering, operation of lines, removing and resetting meters, and in maintenance, particularly as to poles and the street lighting system. The decrease in sales promotion expenses to a low point in 1939 reflected the lessened activity in electric range installations, but in 1940

RE ORANGE & ROCKLAND ELECTRIC CO.

advertising became much heavier, falling off substantially in 1941; supervision costs also increased. Ad-

1938 to 1941, inclusive, apart from taxes and depreciation accruals, may be summarized as follows:

	1938	1939	1940	1941
1. Carrying charges on Supply Co. property (classified in annual reports as rents)				
Pondage rights	\$1,404.91	\$1,329.64	\$1,280.28	\$1,315.65
Pole line and location permits	569.03	538.54	518.48	532.80
	<hr/>	<hr/>	<hr/>	<hr/>
2. Payment to former president	1,973.94	1,868.18	1,798.76	1,848.45
3. Permanent reduction in personnel	1,000.00	900.00	900.00	900.00
4. Merchandising, jobbing, and contract work ..	3,572.32	.....	.....	.....
5. Unusual costs for advertising	1,134.80	1,640.64	1,409.65	2,099.46
6. Equalization of tree-trimming costs over 1936-38 period	4,408.90	.....	.....	.....
7. Equalization of experimental and test work ..	346.41	*38.47	.....	.....
8. Customers' accounting and collecting expense applicable to New Jersey company	4,972.99	4,000.00	.....	.....
9. Additional allowances to past and present employees .....	.....	.....	.....	1,337.15
10. World's Series tickets .....	.....	.....	.....	165.00
Totals	\$17,409.36	\$8,370.35	\$10,108.41	\$6,350.06

* Increase.

ministrative and general expenses were affected mainly by changes in regulatory expenses, costs of continuing property record work, and decreases in officers' salaries.

Adjustments to Operating Income

As a result of the examinations made by employees of the Commission for the years 1937 to 1941, certain adjustments were recommended to be made to the reported operating revenue deductions, and other matters were set out for the consideration of the Commission. Apart from depreciation accruals and income taxes, the adjustments (about \$26,500) recommended for 1937 were larger than those for subsequent years, and involved not only corrections similar to those for the later two years but also improper charges (nonoperating taxes, for example) which the company treated properly in its accounts in subsequent years except 1940.

The adjustments recommended for

The brief submitted on behalf of the company states, with references to the 1938 adjustments, that the first is the only item to be discussed, that the other items do not appear to require discussion and that "Mr. Vavasour testified that if the dam item is allowed and retained, the Commission will also consider these carrying charges"; the brief claims that they should be allowed. Mr. Vavasour's testimony was that he assumed the Commission in considering the cost of the dam would also consider the carrying charges and he presumed that the carrying charges related to the land flooded or occupied by the dam and the lands acquired in part for transmission line rights of way.

Carrying charges on supply company property for taxes, maintenance, insurance, interest and depreciation are charged by the electric company in part to operating expenses but principally to a clearing account. Rentals collected by the electric com-

NEW YORK PUBLIC SERVICE COMMISSION

pany or rent allowances in lieu of compensation to employees are credited to the clearing account and the remainder is charged by the company at the end of the year to miscellaneous income deductions.

[20] The amount tabulated above were charged to operating expenses and are listed in the annual reports of the company as pertaining to pondage rights and pole line and location permits. The record does not give the basis for these charges and does not show exactly what property is involved. All rights of way used by the company are represented in the original cost figures and an allowance (\$40,000) has been made for the company's partial use of the pond. The carrying charges tabulated above should, therefore, be excluded. They have not been substantiated in the record and their inclusion would result in duplication.

[21] The second item in the above tabulation is designated as a pension paid to an individual who was the first president of the company but was associated with the company for only the first few years of its existence. These amounts are really not pension payments but gifts and have no place in costs to be paid by consumers.

The third item reflects a permanent reduction in personnel made possible through a reduction in the office force, curtailment of appliance demonstrations, and because of the operation of the steam plant for standby use only. It relates to only one year.

[22] The fourth item represents amounts designated by the company as the loss resulting from its merchandising and jobbing activities. The Commission has no authority to reg-

ulate charges for such services and this proceeding concerns only rates for electric service. The revenues and expenses for other services should be eliminated. The amounts listed do not include all of the costs considered applicable. For example, the company has not assigned or allowed anything for the use of its property.

[23] The fifth item is an adjustment because of the fact that in 1940 the company instituted a large advertising campaign to encourage the purchase of electric ranges, refrigerators, and other electrical appliances to be sold by dealers in its territory. A new York firm was engaged for 1940, 1941, and 1942. The annual amounts charged as advertising expense, according to the company's annual reports for 1936-41 inclusive, were as follows:

Account			
771.22	.....	1936	\$2,117.93
771.22	.....	1937	1,843.96
787.2	.....	1938	1,461.50
787.2	.....	1939	2,742.70
787.2	.....	1940	12,350.40
787.2	.....	1941	6,348.39

Mr. Vavasour adjusted the 1940 amount downward by \$6,000 "to compare with 1941 and 1942." He stated that the company expected advertising expense in 1942 to approximate the 1941 charge. He characterized the 1940 amount, \$12,350.40, as "extraordinary." But an expenditure of \$6,400 in the future is of exceedingly doubtful propriety. Such large expenditures have been made only since this rate case has been pending and about to close. Utilities generally have greatly reduced their promotional activities, as advertising and business solicitation have been ineffectual. Under present war conditions, there is

RE ORANGE & ROCKLAND ELECTRIC CO.

little need for advertising electric service.

Prior to 1940, the average expenditures for four years averaged about \$2,000. If we allow \$3,000 as a reasonable amount and reduce the expenses for 1940 and 1941 to this level, an ample and probably generous allowance will be made for the future.

The sixth item represents the distribution of tree-trimming expenses over a 3-year period and the seventh item is for equalization of certain experimental and test work at the Tuxedo hydroelectric plant in 1938.

The eighth item is the only adjustment recommended with respect to services performed by the company for the Orange and Rockland Electric Company of New Jersey. The Commission staff apportioned the accounting and collecting expenses according to the number of customers served by the electric company and the New Jersey company.

No doubt further adjustments are desirable in order to exclude from the reported operating expenses all costs relating to services performed for the New Jersey company, but the record gives no basis for the necessary corrections. The exhibit presented by the Commission staff contains the statement that the company has expressed the intention of making a study with a view of determining a basis for charges which will be equitable to both companies, but that in the absence of such a study it is not possible to adjust fully the operating expenses to reflect costs properly chargeable to the New Jersey Company.

The ninth item is made up of payments of additional compensation to two former employees and a payment of sickness expenses of the Tuxedo district manager. An amount of \$1,112.50 was paid to the former supervisor of the company's continuing property record department, who left the company on February 1, 1941. The company paid him at that time \$112.50 as salary for the first half of February, \$450 as compensation in lieu of forty days accumulated vacation and \$550 as a separation allowance. The first two items were charged* to "other general office salaries" and the last to "employees' welfare expense." As the last two items totaling \$1,000, are relatively substantial and are not recurring charges, they were excluded by the Commission accountant. On April 8, 1941, according to the Commission accountant's exhibit, the company discharged its Goshen district manager because of inaccurate or fraudulent customers' meter readings. In addition to pay for eight days in April, he was paid for the remainder of the month, together with compensation insurance thereon, such additional payments being charged to employees' welfare expense. The Commission's accountant considered that such compensation, amounting to \$137.15, to a discharged employee was not a proper charge to operating expenses. A further item was \$200, charged to employees' welfare expenses, for hospital and doctors' bills for the company's Tuxedo district manager, which was likewise considered an improper charge to operating expenses.

The last item of \$165 for tickets

NEW YORK PUBLIC SERVICE COMMISSION

for the 1941 World Series baseball games (\$66 of which was charged to employees' welfare expenses and \$99 to pensions) was also considered improper.

Other items for consideration include:

There are no amounts in the later years which are the most important in fixing future rates.

The company charged only \$20 in 1935 and \$17.12 in 1936 to the operating expense account "regulatory Commission expenses." In 1936 and

	1938	1939	1940	1941
Temporary employees and overtime costs for preparation of C. P. R.	\$12,638.88	\$2,405.55	.....	.....
Regulatory Commission expenses	3,740.83	2,854.02	\$4,969.46	\$3,959.27
Salaries of officers	33,000.00	30,000.00	28,541.67	20,333.33
Special services re income tax return .....	.....	.....	1,235.00	.....
Service fee for insurance requirement survey .....	.....	.....	609.34	.....
Employees' welfare expense .....	.....	.....	565.00	.....
Total	\$49,379.71	\$35,259.57	\$35,920.47	\$24,292.60

[24] Beginning in January, 1938, temporary clerical help was employed and regular employees were paid for overtime while engaged in the preparation of the continuing property record. As Mr. Vavasour testified, these charges represent in general costs which are unusual or nonrecurring. When the continuing property record is completed, such unusual costs will not be experienced and they should not be considered in fixing rates for the future except to the extent that costs will be incurred to keep them up to date. Further, these costs should have been incurred in prior years. If the company had maintained an inventory of its property as most nonutility companies do, it would not have been necessary now to expend such concentrated amounts.

1937, it accumulated costs relating to Case 8793 and security issue proceedings in the account "regulatory Commission *suspense*" and eliminated the accumulated balance at the end of 1937 by charges to operating expenses (\$13,851.81) and other accounts. The Uniform System of Accounts which the company purported to be following provided that amounts charged to "regulatory Commission suspense" shall be distributed to other accounts only over such period and in such manner as the Commission may by order prescribe. As no application was made to the Commission, the company acted illegally.

The amounts charged to regulatory Commission expenses from 1938 to 1941 may be listed from the annual reports as follows:

RE ORANGE & ROCKLAND ELECTRIC CO.

	1938	1939	1940	1941
Declaratory judgment (legal fees) .....	.....	\$40.00	.....	.....
Case 8793 (investigation)	\$429.70	74.57	.....	.....
Case 8970 (C. P. R.)	20.50	7.00	.....	.....
Case 9403 (present proceeding)	3,286.63	2,732.45	\$4,969.46	\$3,959.27
Case 9638 (cost plus contracts)	4.00	.....	.....	.....
Total	\$3,740.83	\$2,854.02	\$4,969.46	\$3,959.27

Total

According to the annual report for 1939, all of the amount charged in that year, except \$44 for legal fees and \$7 of officers' expenses, represents costs and expenses assessed by the Commission. For 1940, the amount so assessed was \$4,280.22 and for 1941 it was \$3,342.00.

[25] These amounts are not of such magnitude as to require amortization over any period, nor is there any basis for amortization. The costs except under unusual circumstances should be charged when incurred.

Ratio of officers' salaries to gross operating revenues:

	1937	1938	1939
Total salaries	7.87%	6.56%	5.92%
Salaries of Messrs. R. W. Smith and A. J. Crane	5.22%	4.11%	3.53%
Salary of Mr. R. W. Smith	4.43%	3.45%	2.94%
Ratio of officers' salaries to number of customers at end of year:			
Salaries of Messrs. R. W. Smith and A. J. Crane	\$4.49	\$3.55	\$3.03
Salary of Mr. R. W. Smith	\$3.81	\$2.97	\$2.53

Naturally, the amounts charged to operating expenses will not be as great when this proceeding is over, and this must be taken into account in considering rates for the future. An allowance of \$500 in future rates will be ample and probably in excess of the amount which will be incurred.

[26] The salaries of the general officers of the company as listed in its annual reports were as follows:

	1937	1938	1939	1940	1941
Roscoe W. Smith	\$34,000	\$27,666.67	\$25,000	\$25,000.00	\$20,333.33
Alfred J. Crane	6,000	5,333.30	5,000	3,541.69	.....
Frank Durland	2,400	2,400.00	2,400	2,400.00	2,700.00
E. F. Eichenberg	6,705	6,365.00	6,360	6,049.40	7,011.90
Harry H. Smith	3,125	3,125.00	3,125	.....	.....
Elwood C. Smith	1,200	1,200.00	1,200	1,200.00	1,200.00
W. A. Kehl	6,882	6,605.00	7,160	7,149.40	7,018.15
Total	\$60,312	\$52,694.97	\$50,245	\$45,340.49	\$38,263.38

Previously, Mr. R. W. Smith received \$36,000 annually, reduced to \$33,000 during 1937, to \$25,000 as of May 1, 1938, and to \$18,000 May 1, 1941. On May 1, 1938, the salary of Mr. A. J. Crane was reduced from \$6,000 to \$5,000 annually. Mr. Crane died in September, 1940.

The relationship of these salaries to gross operating revenues and to the number of customers served was given by Mr. Martin T. Bennett, assistant director of research and valuation, as follows:

NEW YORK PUBLIC SERVICE COMMISSION

Crane and contributed \$3.81 toward the salary of Mr. Smith.

In the brief submitted on behalf of the company, it is stated that Mr. Bennett testified that an executive who organized and built up a successful company would be likely to receive a larger salary than some officer who came into the company after it was organized and operating, and that a president who had constructed and operated an electric company with remarkable economy was entitled to a salary commensurate with the results accomplished. It is claimed that the results accomplished in this company justify the salary paid its president.

There is nothing in the record to substantiate this contention, but rather the contrary. Mr. Bennett testified he made a comparison of the rates of the company with the rates of all other companies filed with the Commission and in effect on January 1, 1940, and January 1, 1941, in order to determine if there was anything outstanding with respect to the rates of the company that might indicate good management. He found that at about the average consumption for the average residential customer of the company, there were only thirteen rates in effect in the state of New York as of January 1, 1940, which resulted in higher bills. Even giving consideration to the rate reductions subsequently made by the company, there were only eighteen districts with rate schedules in effect as of January 1, 1941, which resulted in higher bills than those of this company at the average residential consumption.

Mr. Bennett made a study of the salaries paid by other utilities in the state of New York, as reported in

their annual reports. He found that there were no companies, either electric, gas, or combination electric and gas, having operating revenues greater than one-sixth of the company's revenues which paid their executives amounts aggregating anywhere near as large a percentage of revenues as does this company. Of all the natural gas, manufactured gas, electric, or combination electric and gas utilities reporting to the Commission and having revenues of less than \$2,000,000 for 1939, not one paid any officer or executive a salary which reached \$10,000 a year. He explained that this was also true for one group of three companies, each of which had the same president. The aggregate salary paid this individual during 1939 by the three companies was \$12,005 and the total combined revenues of the three companies were over \$4,000,000; this individual was also president of another company and director of a fifth company, but receives no salary from the latter two positions.

Obviously, the salaries paid by the company are out of all proportion to the salaries paid by other utilities in the state of New York. Moreover, the amounts tabulated above do not include all of the compensation received from the company by officers. Those who were directors also received directors' fees. For example, Mr. R. W. Smith received directors' fees of \$300 in 1937, \$180 in 1938, and \$110 in 1939. He also received \$3,400 per year from the Orange and Rockland Electric Company of New Jersey.

Even this does not indicate the full extent of the remuneration received. In the opinion in Case 8793 (1937)

RE ORANGE & ROCKLAND ELECTRIC CO.

it was stated [NYPSCR 883, 903]:

"Although it is probable that all of the income received by Mr. R. W. Smith while an officer of the Orange and Rockland Electric Company, directly and indirectly from this company and its subsidiaries, is not completely covered in the preceding pages, one can summarize what has been developed. The investigation has shown the following items which Mr. Smith received for the period from 1922 to 1936, inclusive:

(1) From Orange and Rockland Electric Company:

Salary—1922	\$9,600.00
Salary—1923-27	75,000.00
Salary—1928-35	168,000.00
Salary—1936	36,000.00
Engineering fees	253,548.54
Commission on sale of preferred stock.	40,488.30
Total	\$582,636.84

(2) From Orange and Rockland Electric Company of New Jersey:

Salary—1932-35	\$9,600.00
Salary—1936	3,400.00
Engineering fees	20,929.82
Other fees	1,520.00
Total	35,449.82

"As the period covered is fifteen years, Mr. Smith received an average of over \$41,000 per annum. This is a small company. In view of its size and that Mr. Smith was wholly unable to show what work he had actually done in return for the large engineering fees paid, it is evident that the amounts received are grossly excessive.

"The above large sum does not include the dividends received from the New Jersey company or from the New York company. It has been pointed out that in the case of his in-

vestment in the New Jersey company, he received a stock dividend of 5,000 per cent."

During the five years, 1935 to 1939 inclusive, Mr. R. W. Smith received in salaries, engineering and directors' fees more than \$180,000 from these two companies as indicated by the following tabulation:

From Orange and Rockland Electric Company:

Salary	\$143,666.67
Engineering fees ..	19,458.95
Directors' fees ..	1,190.00
Sale of common stock of O & R Electrical Supply Co.	12,250.00
Expenditures made in behalf of company	302.87
Total	\$176,868.49
Dividends from common stock	\$43,892.00
Dividends from preferred stock	2,913.75
Total	46,805.75

From Orange and Rockland Electric Company of New Jersey:

Salary	\$16,000.00
Engineering fees ..	862.32
Principal on notes ..	3,500.00
Total	\$20,362.32
Stock dividend	\$32,000.00
Dividends from common stock	15,014.40
Interest on notes ..	927.08
Total	47,941.48
Total	\$68,303.80

As is indicated, Mr. Smith did not receive directors' fees from the New Jersey company. Moreover, during the five years he received neither salary nor fees from the other companies with which he was connected—O & R Electrical Supply Company, Orange and Rockland Securities Corporation, Orange County Engineering Company, Monroe-Lake Street Corporation. In fact, the only amounts paid

NEW YORK PUBLIC SERVICE COMMISSION

to Mr. Smith by the Securities corporation was an aggregate of \$13,055.61 in cash on the sale by Mr. Smith to the corporation of preferred stock of the electric company. The supply company paid him less than nothing during this period. Of a \$2,687.46 balance due him as of January 1, 1935, Mr. Smith waived collection of \$2,178.71, which was credited to surplus by the supply company and the remainder of \$508.75 was wiped out by the cancellation of accounts receivable by the electric company.

It is to be noted that the tabulation above lists amounts credited to Mr. Smith, not all of which amounts were received by him in cash; the electric company also acted for him in the fashion of a clearing house or broker. The New Jersey company issued \$32,000 of stock to him and paid him the balance in cash. Of the \$223,674.24 credited to Mr. Smith by the New York company, a balance of \$495.96 remained outstanding as of January 1, 1940, and the remainder was discharged as follows:

Amount paid in cash	\$155,444.31
Cancellation of accounts receivable in the name of R. W. Smith	26,923.69
Payment to Columbia Trust Company for account of R. W. Smith	6,000.00
Discharge of mortgage on property of R. W. Smith	6,000.00
By application to receivables in the name of Monroe-Lake Street Corporation:	
Accounts receivable	21,533.37
Notes receivable	7,276.91
Total	\$223,178.28

It appears that the company had rather large accounts receivable from its president and had loaned its president money, taking a mortgage on his property in security. The company

also had accounts receivable and notes receivable from the Monroe-Lake Street Corporation, controlled by Mr. Smith. When the company discharged the indebtedness of the Monroe-Lake Street Corporation by application of amounts owing to Mr. Smith, the corporation set up an obligation on its books to Mr. Smith, which obligation was thereafter discharged by the issuance of notes and capital stock of the Monroe-Lake Street Corporation to Mr. Smith.

When an individual completely controls a private business enterprise, one may often find personal items intermingled in the company accounts. But this is a public utility, and the accounts between the electric company and its president have been kept as though the electric company was the president's own private business enterprise. The electric company has loaned him money, has discharged his obligations and apparently has had numerous transactions with personal and private corporations controlled by him. At the same time, it was paying him salaries and fees ranging from more than \$36,000 to a minimum of \$25,000 annually, in 1935-39, and \$18,000 since May 1, 1941. It also carried on all of the operations of a foreign utility, the New Jersey company, from which its president also received salaries and fees.

Such operations cannot too strongly be condemned, even though Mr. Smith and his relatives control the company.

An allowance of \$12,000—the largest amount found by Mr. Bennett in his investigation of other companies—is a maximum amount.

RE ORANGE & ROCKLAND ELECTRIC CO.

Depreciation expense

[27] The amounts charged to operating expenses by the company for depreciation (Table 6 *supra*) were less than the accruals credited to the reserves. Part of the accruals, \$12,471.67 in 1938, \$13,700.11 in 1939, \$12,016.84 in 1940, and \$12,662.29 in 1941, were charged through clearing accounts (annual reports). These clearing account accruals were based upon book cost, not original cost, and thus to some degree the plant accounts, operating expenses, and other accounts to which the accruals were finally cleared were overstated.

the amount of depreciation chargeable to clearing accounts in that year would have increased to approximately the same extent as the company's charge to clearing accounts for depreciation in 1941 exceeded that for 1940, or about 5.4 per cent. On this basis, Mr. Hine's charge for 1941 would be about \$8,660.

Averaging Mr. Hine's year-end figures for the total annual depreciation and deducting the amounts chargeable to clearing accounts, leaves the amounts shown below as directly chargeable to Account 503, Depreciation:

	1938	1939	1940	1941
<i>Annual depreciation (Table 5) based on plant balances</i>				
—at beginning of year	\$108,388	\$110,961	\$116,292	\$117,429
—at end of year	110,961	116,292	117,429	.....
Sum	<u>\$219,349</u>	<u>\$227,253</u>	<u>\$233,721</u>	<u>.....</u>
Average	\$109,675	\$113,627	\$116,861	*\$118,201
Less amounts chargeable to clearing accounts	8,493	8,015	8,218	8,660
<i>Chargeable to depreciation</i>	<i>\$101,182</i>	<i>\$105,612</i>	<i>\$108,643</i>	<i>\$109,541</i>

* Exhibit 6 does not give depreciation based on balance at end of 1941; \$118,201 is derived by adding to \$117,429 the approximate accrual of \$2,393 for depreciation on the 1941 additions for one-half year, less \$1,621 for depreciation on the 1941 retirement for one-half year.

The depreciation charged to clearing accounts consisted of depreciation on stores, transportation, laboratory, and shop equipment. Mr. Hine's estimates of annual depreciation on these four classes of equipment as of the ends of the years 1937-1940, inclusive, and the resultant arithmetical averages for the years 1938, 1939 and 1940, were as follows:

December 31, 1937	\$9,071
December 31, 1938	7,916
December 31, 1939	8,114
December 31, 1940	8,321
Year 1938	\$8,493
Year 1939	8,015
Year 1940	8,218

Mr. Hine did not make an estimate for 1941, but it may be assumed that

The operating expense and plant accounts in these years, as noted above, are somewhat overstated because the depreciation charged to clearing accounts, and subsequently cleared to operating expense and plant accounts, was greater than the corresponding depreciation as estimated by Mr. Hine. It is possible to make approximate adjustment to operating expenses by noting from the annual reports the percentages cleared to operating expenses, out of the total amounts cleared from the clearing accounts for stores, transportation, laboratory and shop equipment, and applying these percentages to the differences between the company's and Mr. Hine's totals,

NEW YORK PUBLIC SERVICE COMMISSION

respectively, for depreciation chargeable to clearing accounts; the results would represent the approximate amounts to be deducted from operating expenses as reported.

An examination of the amounts cleared in each of the four years, from the four clearing accounts mentioned, discloses that the following percentages were cleared to operating expense accounts: 48 per cent in 1938; 45 per cent in 1939; 52 per cent in 1940; and 59 per cent in 1941. Applying these percentages in the manner described above produces the following results:

Year	A Per cent cleared to operating expenses	B Depreciation chargeable to clearing accounts	C Company	Hine	Difference	E Portion of difference applicable to operating expenses (A × D)	
						D	E
1938	48%	\$12,472	\$8,493	\$3,979		\$1,910	
1939	45	13,700	8,015	5,685		2,558	
1940	52	12,017	8,218	3,799		1,975	
1941	59	12,662	8,660	4,002		2,361	

The amounts cleared to the accounts for plant in service represent much smaller percentages and do not warrant an attempt at adjustment of the rate base.

The total reductions in annual depreciation charges for the four years are as follows:

Chargeable to depreciation	1938	1939	1940	1941
per company	\$138,169	\$140,292	\$141,822	\$144,184
per W. F. Hine	101,182	105,612	108,643	109,541
Reduction	\$36,987	\$34,680	\$33,179	\$34,643
Additional reduction (clearing accounts)	1,910	2,558	1,975	2,361
	\$38,897	\$37,238	\$35,154	\$37,004

Operating taxes

Prior to 1938, the company included in operating taxes accruals for Federal capital stock and excess profits taxes, state gross income, and gross earnings taxes on nonoperating income and taxes on nonutility property.

In 1938 and thereafter, such tax accruals were charged against merchandising and jobbing, nonoperating revenue deductions or income, as applicable. The exhibits presented by the Commission staff indicate only one minor adjustment, to correct an error (\$35.12) to the amounts reported for operating taxes by the company in 1938 and none for 1939. For 1940, an error of the company in charging to operating taxes \$372.60 of taxes applicable to nonoperating property was corrected, and an addition of \$810.70 was made for an additional assessment of the Federal electric

energy tax applicable to 1940; the net addition to operating taxes was thus \$438.10. No adjustment of taxes (other than income taxes) for 1941 was recommended.

Adjusted Income

The tabulation below [p. 307] sum-

	1938	1939	1940	1941
per company	\$138,169	\$140,292	\$141,822	\$144,184
per W. F. Hine	101,182	105,612	108,643	109,541
Reduction	\$36,987	\$34,680	\$33,179	\$34,643
Additional reduction (clearing accounts)	1,910	2,558	1,975	2,361
	\$38,897	\$37,238	\$35,154	\$37,004

marizes the necessary adjustments to be made to the reported operating income and shows the resultant adjusted income before income taxes, the Federal income tax computed on such adjusted income, and finally the adjusted operating income:

RE ORANGE & ROCKLAND ELECTRIC CO.

TABLE 11—ADJUSTED OPERATING INCOME

	1938	1939	1940	1941	1941 revised for future
Operating income as reported	\$134,262	\$147,926	\$140,670	\$156,003	\$219,038
Increase				18,000	
Decrease (one-half rate reduction effective 7/1/41)					10,790
					<u>\$208,248</u>
Increases:					
Adjustments to operation and maintenance expense (<i>supra</i>)	17,409	8,370	10,108	6,350	.....
Regulatory expenses					3,459
Advertising			23,350	3,348	.....
Officers' salaries	18,000	15,000	14,417	8,333	.....
Depreciation	38,897	37,238	35,154	37,004	.....
Operating taxes (other than income tax) ...	35	.....	*438	.....	629
Adjusted income before income tax	\$208,603	\$208,534	\$203,261	\$219,038	\$212,336
Federal income tax	26,417	26,536	38,580	55,749	60,729
Adjusted operating income	\$182,186	\$181,998	\$164,681	\$163,289	\$151,607

* Decrease.

¹ Estimate of 1941 revenue loss due to incorrect meter readings.

² In addition to \$6,000 included in \$10,108 of adjustments by staff to operation and maintenance expense (above).

In determining the amounts for 1938 and 1939, the full reported costs for continuing property record preparation and regulatory expenses have been allowed, and an allowance of \$15,000 has been made for the salaries of Messrs. A. J. Crane and R. W. Smith. For 1940 and 1941 \$12,000 is allowed for Mr. Smith's annual salary, and for 1940 \$2,125 is allowed for Mr. Crane (to September 15th).

Operating Income Changes

The right-hand column of figures above gives effect in part to future conditions. Upon the conclusion of this proceeding, regulatory expenses will decrease. On the other hand, the company made a rate reduction as of July 1, 1941 (page 18) which it is estimated would reduce annual operating revenues by \$21,580. Only one-half of the year's operation under the reduced rates effective as of July 1, 1941, is reflected in the 1941 reported

operating revenues, which therefore should be reduced by \$10,790 to show the effect of the present rates under the 1941 conditions and consumption. If revenues are reduced, the taxes based upon such revenues will be reduced by approximately \$629. Actually, of course, revenues are usually increased after rate reductions because of greater consumption, and this has been the experience of this company (see Table 7 *supra*).

Judging by these indicated changes and on the basis of 1941 operations, the operating income before Federal income tax would be approximately \$212,336, assuming no increases in sales of electric energy and assuming no other major variations in the operating expenses and taxes.

Mr. Eichenberg testified on January 24, 1941, as to increases which the company anticipated in operating expenses and taxes. He presented no exhibit dealing with this subject and

NEW YORK PUBLIC SERVICE COMMISSION

in fact did not consider even the rate reductions which have already been made by the company. His testimony dealt with five anticipated increases as follows:

Increased cost of purchased energy ..	\$3,864
Increase in wages	888
Increase in insurance	1,590
Increase in Federal electric energy tax	2,004
Increase in Federal income tax	(?)

Increases in these items are already reflected in the operating income for 1941, which was placed in the record after Mr. Eichenberg testified. These increases, therefore, need not be discussed, except as to income tax.

Effect of Increased Income Taxes

[28] In computing Federal income

ing the Federal income tax for 1942 is somewhat different from that applicable to prior years. This method is shown by the following computation:

(1) Adjusted operating income before Federal income tax (Table 12)	\$212,336
(2) Deduct: Bond interest ..	\$34,500
(3) Interest on consumers' deposits	1,218 35,718
(4) Net amount	\$176,618
(5) Deduct preferred stock dividends (<i>infra</i>)	61,984
(6) Net amount	\$114,634
The statute provides for a normal tax of 24 per cent upon item (4) which would amount to	\$42,388
and a surtax of 16 per cent on item (6) amounting to	18,341
or a total tax of	\$60,729

TABLE 12—FEDERAL INCOME TAX

	1938	1939	1940	1941	Future year
Adjusted operating income before income tax (Table 11)	\$208,603	\$208,534	\$203,261	\$219,038	\$212,336
Less:					
Bond interest	47,169	46,120	41,278	34,500	34,500
Interest on customers' deposits	1,330	1,589	1,231	1,218	1,218
Other deductions .....	.....	.....	.....	13,468	.....
Total deductions	\$48,499	\$47,709	\$42,509	\$39,204	\$35,718
Net taxable income	160,104	160,825	160,752	179,834	176,618
Income tax rate	16½%	16½%	24%	31% (See above)	
Resulting income tax	\$26,417	\$26,536	\$38,580	\$55,749	\$60,729
Income tax accrued by company	20,766	21,965	9,900	47,160	.....
Income tax paid by company (applying to years shown)	*23,562	*22,745	*48,727	43,410	.....

¹ Deficiency assessment of 3 per cent Federal electric energy tax for period December 1936 to April 1941 (\$3,081.10) plus interest (\$404.98).

² Includes \$5,098 deficiency assessment paid in 1940.

³ Includes \$4,989 deficiency assessment paid in 1940.

⁴ Relatively small tax chiefly caused by company claiming \$70,280 as deduction for premium paid, bond interest to legal call date and legal expenses incurred in redeeming \$1,153,000 principal amount of its 4 per cent first mortgage bonds in 1940.

tax, certain deductions from income are allowed in determining the taxable income. Table 12 shows the method provided for by statute for each of the years from 1938 to 1941, inclusive. The method to be followed in comput-

The Federal income taxes accrued and paid by the company differ from those computed in Table 12, partly because of alleged operating expenses and taxes disallowed herein but deducted from the revenues on the com-

RE ORANGE & ROCKLAND ELECTRIC CO.

pany's income tax returns, and also because the returns include the effects of nonoperating revenues and expenses and of deductions for refinancing costs, etc.

It will be observed, from Table 11, that the adjusted operating income before allowance for Federal income tax has shown no great variation over the period covered. For 1938 it was \$208,603, for 1941, \$219,038, and for the present and immediate future it is taken as about \$212,000. However, if Federal income tax is deducted, the remainder shows a marked decline, due solely to the heavy increase in Federal income tax rates since 1939.

The heavy increases in Federal income taxes present a serious problem in rate regulation. For example, if the Federal income tax rate had been the same in 1941 as in 1939, the company could have made rate reductions of nearly \$30,000 and still have had the same net operating income which it actually had. By successive increases of the income tax rate, the customers of the Orange and Rockland Electric Company have been deprived of rate reductions they would otherwise now obtain.

The only alternative seems to be to refuse to recognize as a proper cost in determining future rates the Federal income tax assessed against utilities in part or in whole. It has been sug-

gested, for example, that an income tax rate of 24 per cent be considered as a cost of service and that all over 24 per cent be borne by the stockholders and not by utility customers. This is apparently based upon the theory that 24 per cent (the 1940 rate) represents the prewar or pre-emergency level which utility customers should bear and that they should not be required to pay any part of the taxes traceable to the present war.¹ But governmental expenditures did not begin to increase due to the World War in 1941 and they will not terminate when the war ends. If a figure is to be chosen for a "normal base," 16½ per cent is more logical, for that was the rate in effect in 1938 and in 1939 when the war formally started.

This Commission has not held that all taxes paid by utilities should be shifted through rates to consumers. It has held that capital stock taxes and New York state excess dividends taxes, for example, should be borne by the utility and not by consumers or users of utility services. But it does not seem fair or just to split the present Federal income tax and place part upon the stockholder and part upon the consumer. It seems much more equitable and practicable to consider the income tax as a cost of service and give weight to this course when we

¹ In a recent decision of the Federal Power Commission (Docket Nos. G200 and 207) 45 PUR(NS) 203, 219, Commissioner Scott wrote an opinion containing the following:

"So that there may be no confusion concerning the tax situation in connection with the companies subject to our jurisdiction, where necessary to stabilize utility rates at reasonable levels during the war emergency period, we propose to allow as proper operating expenses only such taxes as may be termed ordinary or normal. For the purpose of distinguishing between ordinary or normal and

war emergency or abnormal taxes, we conclude that the basis prescribed in the 1940 Revenue Act establishes the highest possible level of Federal taxes which may be allowed as an element of operating expense for such purpose. The 1941 Revenue Act and the pending 1942 proposal certainly reflect abnormal tax requirements for war purposes."

However, in its final determination of these cases, it did not use 24 per cent for computing Federal income tax but 31 per cent for 1941 and 45 per cent for 1942 (see page 28 of memorandum).

NEW YORK PUBLIC SERVICE COMMISSION

come to determine what shall be allowed as return to the stockholders. This principle was recognized by the United States Supreme Court in Galveston Electric Co. v. Galveston, 258 US 388, 399.

Following this procedure, the net operating income of the company for 1941 at the rates *now* in effect after revision in the manner already described and after allowing for Federal income taxes at the 1942 rate would be \$151,607 (Table 11).

Return?

[29] We come now to consider what return should be allowed and whether any rate reduction is justified. In doing so, it should be borne in mind that the net operating income being considered is less than that of any other year studied—over \$30,000 less than in 1938 (Table 11).

It is common knowledge that the return upon investments generally has markedly declined since the boom period prior to 1930. The conditions which were used to justify rates of return upon fair value of 6, 7, and even 8 per cent prior to 1930 no longer obtain. That there should be a clear distinction between rate of return upon fair value and dividend rates is more clearly understood and recognized. Many have not appreciated that a 6 per cent rate of return on fair value means a considerably higher dividend rate on common stock.

To illustrate: Let us assume a fair value of \$1,000,000 is represented by—

Bonds bearing an interest rate of 3½%	\$500,000
Preferred stock, dividend rate of 5%	200,000
Common stock, stated or par value of	250,000
Surplus	50,000

Total \$1,000,000

Let us assume a fair return upon the fair value of \$1,000,000 of 5 per cent, then

a 5 per cent return yields	\$50,000
Deduct interest at 3½% of ..	\$16,250
Preferred stock dividends of 5%	10,000
	26,250

Balance remaining \$23,750

This is equivalent to 9½ per cent of stated or par value of the common stock. The company could declare dividends of 8 per cent and still credit nearly \$4,000 to surplus.

Is there any doubt that an electric company such as the one here being considered could be successfully financed on the basis of 3½ per cent bonds, 5 per cent preferred stock, and a common stock dividend rate of 7 per cent, provided it were soundly financed, efficiently operated and kept out of entangling allowances and speculative outside enterprises?

Let us examine the financial setup of the Orange and Rockland Electric Company itself. It had outstanding upon December 31, 1941

3% bonds, face value	\$1,150,000	interest	\$34,500
5% preferred stock, par value	795,200	dividends	39,760
6% preferred stock, par value	370,400	dividends	22,224
Total			
Common stock, stated value	\$2,315,600		\$96,484
	176,020	dividends of 7%	12,321
Total	\$2,491,620		\$108,805

RE ORANGE & ROCKLAND ELECTRIC CO.

The average yield would be 4.37 per cent.

In other words, a net income of \$109,000 would pay interest on all bonds outstanding, all preferred stock dividends and a common stock dividend of 7 per cent. A net income of \$110,565 would yield 8 per cent on the common stock. But the total of such securities was in excess of the fair value of the property upon December 31, 1941, to the extent of nearly \$250,000.

With the above facts in mind and particularly that the average cost of money to the Orange and Rockland Electric Company on the basis of securities actually issued could not exceed 4½ per cent, it seems that a 5½ per cent rate of return would be ample to cover all possible contingencies. Applying this rate to the fair value of the property would require as a fair return just below \$123,500. Deducting this amount from the net income after deducting all items of cost leaves slightly over \$28,000.

But a reduction of \$28,000 in rates does not produce a reduction in net income of that amount. Stated conversely, a reduction of \$28,000 in net income would justify a much larger decrease in rates due to the high income tax rate of 1942 and to the saving of 3½ per cent Federal electric energy tax and 2½ per cent in state gross receipts tax. Allowing for these savings, a \$28,000 reduction in net income would require a reduction of nearly \$50,000 in rates.

Addendum

During the consideration of this proceeding and particularly the discussion of the above memorandum,

certain questions have been raised which probably deserve further attention.

Commissioner Van Namee selects three points upon which he disagrees with the determinations made, all of them being in favor of the company's contentions. He would—

1. Increase the allowance for regulatory Commission expenses	\$1,000
2. Increase the president's salary from \$12,000 to \$15,000	3,000
3. Increase the rate of return from 5½ per cent to 6 per cent	11,250

Total increases in cost of service \$15,250

As each of these increases has an effect upon the rates considerably in excess of the amount named, because of taxes involved, Commissioner Van Namee's changes would reduce rates by less than one-half the amount suggested in my memorandum.

Since reading Commissioner Van Namee's memorandum, I have reviewed the record with each of the three points in mind and find no justification for increasing any of the allowances made in my determinations.

During the progress of the proceeding, which has been outstanding for such a long period, I have had many occasions to measure the extent to which the president has directed, controlled and managed the affairs of the company. These are things which are not susceptible of statistical measure but no one can be connected with a proceeding for such a long period without having an opportunity of judging the value of the chief officer's services and the extent to which the public should be called upon to pay rates to compensate him. I am firmly of the opinion that an allowance of \$12,000 per annum is an

NEW YORK PUBLIC SERVICE COMMISSION

ample and not a meager salary for the president of this company.

However, let us see what an allowance of 5½ per cent return on \$123,500 in addition to all operating expenses including depreciation and taxes will leave the company for surplus and contingencies:

5½ per cent return is equivalent to ..	\$123,500
As set forth in the above memorandum, interest and dividends on preferred stocks amount to (Table 6 and discussion on return).....	97,747
leaving	\$25,753
If now we deduct 7 per cent on the common stock	12,321
there remain for other purposes ..	\$13,432
Suppose we adopt Commissioner Van Namee's findings as to Items 1 and 2 above listed of	\$4,000
there remain for additional contingencies and credits to surplus	\$9,432

Referring to the company's balance sheet at the end of 1941, it appears that the company then reported an earned surplus of over \$750,000 (Table 1). Is there anything in these figures which indicates that the company actually needs still further preferential treatment?

In considering the results obtained, one should remember that in the charges which have been allowed as items of cost in determining future rates to be charged, I have allowed about \$110,000 for depreciation, which is over 3.6 per cent of the original cost of all of the property. And I have also allowed for income taxes for each of the years considered an amount considerably in excess of the taxes paid or accrued (see Table 12).

There is no evidence here of any niggardly treatment of the company.

It is clear that the only really important criticism of the findings submitted relates to the rate of return.

Commissioner Van Namee finds nothing in the last ten years that would justify a departure from a 6 per cent return but maintains that notwithstanding the very low cost of money which has prevailed in recent years, the Commission should continue to allow a 6 per cent return with utter disregard of changing conditions.

Through the statutory requirement that all utilities under the jurisdiction of this Commission (except railroads and a few other common carriers) may not issue securities without our approval, the Commission has constantly before it evidence as to the actual cost of obtaining funds for utility construction and refinancing. Since 1929, this Commission has approved the issuance of securities totaling over \$2,000,000,000 in face, par or stated value. A very large part of these securities has been issued to refund securities issued at higher interest or dividend rates, and during the last five years the Commission has approved a second refinancing of securities which were issued during the early years of the depression to refinance securities issued prior to 1930.

Thus, the Commission has at first hand convincing and unmistakable evidence that the cost of money to utilities under our jurisdiction has not only declined markedly since the pre-1930 days but since the first half of the depression period. We do not need to speculate as to whether the cost of securing funds has declined; every member of the Commission knows it has declined. How can anyone possibly ignore these facts and persist to burden the public with rates of return which are not necessary to attract capital or even to pay interest and

RE ORANGE & ROCKLAND ELECTRIC CO.

dividends on securities outstanding?

This very company is a typical illustration of the decline in money rates that has taken place in the past decade. On December 31, 1934, the Orange and Rockland Company had outstanding \$1,250,000 face value of 30-year, 5 per cent bonds maturing in 1958. During 1935, these bonds were refunded by the issuance of 4 per cent bonds maturing in 1960. Five years later or in 1940, these bonds were in turn refunded by the issuance of 3 per cent 25-year bonds maturing in 1965. These bonds were sold at a premium thus indicating that the nominal rate of 3 per cent was in excess of the market rate. Thus between 1928 and 1940 the interest rate on first mortgage bonds of this company declined from 5 per cent to 4 per cent and then to 3 per cent—a total decline of 2 per cent.

On December 31, 1934, this company had outstanding preferred stocks—
\$965,000 face value, 7 per cent, annual dividends of \$67,550
\$586,200 face value, 6 per cent, annual dividends of 35,172

Total \$102,722 equivalent to an average dividend rate of 6.62 per cent.

These preferred stocks were refinanced in 1935 and 1936. At the end of the latter year, the company had outstanding—

\$583,100 face value, 6 per cent, annual dividends of	\$34,986
\$900,000 face value, 5 per cent, annual dividends of	45,000
Total equivalent to an average dividend rate of 5.39 per cent.	\$79,986

Thus, the decline in the average rate on preferred stocks was $1\frac{1}{4}$ per

cent within the short space of a few years.

Prior to 1940, the state required public utilities to pay 6 per cent interest on deposits made by customers to assure payment of their bills. In that year, the gas and electric utilities of the state made a concerted and successful effort to persuade the legislature to reduce the rate from 6 to 4 per cent. Practically the sole argument in favor of such action was that the cost of money had greatly declined, that whereas 6 per cent had been a fair and reasonable rate prior to 1930, lower rates had prevailed for a long period and it seemed certain low interest rates would continue, at least for some time to come, and that utilities should not be obliged to pay more than others on funds contributed by customers. The legislature reduced the interest rate from 6 to 4 per cent and the Commission has permitted other utilities to reduce their interest rates to 4 per cent. This is a definite recognition by this Commission of the change in money rates. How can we justify this action and still maintain that public utilities are entitled to 6 per cent upon every dollar they are called upon to provide and also on customers' deposits for which they pay only 4 per cent?

To refuse to recognize facts of current knowledge is to disregard the obvious.

[30] Commissioner Van Namee says that consideration should be given to an increase in the cost of living said to be from 15 to 20 per cent during the last five years, apparently suggesting this as a reason why the rate of return should not be reduced. There is no proof in the rec-

NEW YORK PUBLIC SERVICE COMMISSION

ord of the extent to which the cost of living has increased or decreased in any period; but possibly we are justified in recognizing that the cost of living has increased particularly in the last two years. But what of it? It is also true that the birth rate has increased in the last year. But does either have any relation to the cost of money?

The cost of money as indicated by the rates at which securities are issued and bought and sold in the open market is a resultant of many factors. It is the resultant that we are considering and not any one element whether related or unrelated to the question at issue. The cost of living never has been taken as a measure of what money should cost in the face of what it actually costs and actual costs as shown by the scores of proceedings upon which the Commission itself has passed is a better evidence of the rates of return necessary to attract and retain capital than any single element however important it may be.

It has been suggested that $5\frac{1}{2}$ per cent is not a fair rate of return according to the principles laid down by the United States Supreme Court. Let us examine some of the representative decisions. It is unnecessary to review all of them. Many would not be helpful for they repeat what was said in earlier cases. Further, when the court sustains a legislative act or Commission decision which allows 6, 7, or 8 per cent, it is not particularly important in deciding what the rate of return should be in order to pass as "fair." The real question here is how much less than 6 per cent is fair under

present conditions for an electric utility such as the Orange and Rockland Company.

The general rule is well stated in the Consolidated Gas Company Case, decided in 1909. Mr. Justice Peckham speaking for the court said (Willcox v. Consolidated Gas Co. 212 US 19, 48, 53 L ed 382, 29 S Ct 192, 48 LRA(NS) 1134, 15 Ann Cas 1034):

"There is no particular rate of compensation which must in all cases and in all parts of the country be regarded as sufficient for capital invested in business enterprises. Such compensation must depend greatly upon circumstances and locality; among other things, the amount of risk in the business is a most important factor, as well as the locality where the business is conducted and the rate expected and usually realized there upon investments of a somewhat similar nature with regard to the risk attending them. There may be other matters which in some cases might also be properly taken into account in determining the rate which an investor might properly expect or hope to receive and which he would be entitled to without legislative interference. The less risk, the less right to any unusual returns upon the investments. One who invests his money in a business of a somewhat hazardous character is very properly held to have the right to a larger return without legislative interference, than can be obtained from an investment in government bonds or other perfectly safe security. The man that invested in gas stock in 1823 had a right to look for and obtain, if possible, a much greater rate upon his investment than he who invested in such property in the city of New York

RE ORANGE & ROCKLAND ELECTRIC CO.

years after the risk and danger involved had been almost entirely eliminated."

This case is almost invariably cited as fixing a 6 per cent return as fair and reasonable, and the court did find that the rates fixed by the New York legislature would allow at least 6 per cent return. But there is more to that decision. In the operating expenses used by the court, there was no allowance for depreciation; there was an allowance for retirements, which is quite a different thing—a lesser thing—as everyone well knows, this Commission no less than others.

There is another decision, handed down upon the same day indeed, just before the Willcox Case, which emphasizes this point. In *Knoxville v. Knoxville Water Co.* (1909) 212 US 1, 53 L ed 371, 29 S Ct 148, Mr. Justice Moody said in holding the city ordinance in question to be constitutional (at p. 17):

"Upon any aspect of the evidence the company is certain to obtain a substantial net revenue under the operation of the ordinance. The net income, in any event, would be substantially 6 per cent, or 4 per cent after an allowance of 2 per cent for depreciation."

The significance of this utterance should not be overlooked. It is clearly a ruling that *4 per cent in addition to 2 per cent for a depreciation reserve credit is not confiscatory*. (See comment of Mr. Justice Stone in a dissenting opinion in the West Case [1935] concurred in by Justices Brandeis and Cardozo, 295 US 662, 683, 79 L ed 1640, 8 PUR(NS) 433, 444, 55 S Ct 894.)

Passing to the period of higher money rates, the Bluefield Case clearly raised the question whether the rates considered compensatory in the period before World War I would be applicable to 1920 conditions. Mr. Justice Butler wrote the opinion in that case (*Bluefield Water Works & Improv. Co. v. West Virginia Pub. Service Commission*, 262 US 679, 692, 67 L ed 1176, PUR1923D 11, 20, 43 S Ct 675). He said:

"The company contends that the rate of return is too low and confiscatory. What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities

NEW YORK PUBLIC SERVICE COMMISSION

for investment, the money market and business conditions generally."

The court found that the order of the state Commission did not allow sufficient return after deducting 2 per cent for credits to the depreciation reserve saying (at p. 695):

"Under the facts and circumstances indicated by the record, we think that a rate of return of 6 per cent upon the value of the property is substantially too low to constitute just compensation for the use of the property employed to render the service."

As a matter of fact, after deducting 2 per cent for depreciation, the rate of return did not reach 4 per cent in any recent year.

Let us now pass to the depression period following the speculative era which so many thought would last forever. What later became known as the Lindheimer Case had quite a history. The decree of the lower Federal court in favor of the company, dated January 31, 1930, 38 F(2d) 77, PUR 1930B 148, was set aside by the United States Supreme Court (282 US 133, 75 L ed 255, PUR1931A 1, 51 S Ct 65) and the case remanded to the District Federal court for "appropriate findings as to the results of the intrastate business in Chicago and the effect of the rates in question for each of the years since the date of the Commission's order." (Italics supplied.)

Pursuant to this direction, the district court made several findings of fact. Among them was the following (3 F Supp 595, 599, PUR1933E 301, 308):

"(32) The fair rate of return on the average fair value of plaintiff's

intrastate property was $7\frac{1}{2}$ per cent for each of the years 1923 to 1927, inclusive; 7 per cent for each of the years 1928, 1929, and 1930; $6\frac{1}{2}$ per cent for 1931; and $5\frac{1}{2}$ per cent for 1932."

Regarding these rates, the court said (at p. 605):

"Applying the standard prescribed by the Supreme Court, we have made findings as to the proper rate of return for each year which is necessary to avoid the charge of confiscation. One of the factors to be considered is that of the rates 'generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties.'"

As the court found that the rate of return upon the fair value it had established had the rates involved in the suit been in effect was in each year considerably below the rates specified above, it held that the interlocutory injunction should be made permanent.

This decision was appealed to the United States Supreme Court which reversed the decree below and directed the lower court to dissolve the interlocutory injunction, to provide for the refunding of the amounts due subscribers and to dismiss the bill of complaint.

In the opinion in this case (Lindheimer v. Illinois Bell Teleph. Co. [1934] 292 US 151, 78 L ed 1182, 3 PUR(NS) 337, 54 S Ct 658, written by Mr. Chief Justice Hughes), the findings as to rate of return were referred to and stated (page 160) but in no respect did the Supreme Court reverse those determinations or indicate

RE ORANGE & ROCKLAND ELECTRIC CO.

in any way that the rates were too low or not determined upon a proper basis. The great significance of these two decisions read together, as they should be, is that from 1927 to 1932, the fair rate of return declined 2 per cent that is from $7\frac{1}{2}$ to $5\frac{1}{2}$ per cent. In one year, it fell 1 per cent.

There was another case before the same United States district court (E. D. of Illinois) about the same time as the Chicago Telephone Case. This was the case of the Kankakee Water Co. v. Gilbert (PUR1933B 145) decided January 6, 1933. It involved a determination of whether the valuation of the company's property found by the Illinois Commerce Commission was fair and reasonable and whether the rate of return of "approximately 5.17 per cent" was just and reasonable. The court upheld the Commission upon both points. Regarding the rate of return, it said (at p. 146) :

"Under the existing generally depressed industrial and financial conditions, indicating a greatly abnormal condition both generally and locally, all of which appears in the record, we are not warranted in finding that the probable return of 5.17 per cent upon the valuation as aforesaid furnished by the Commission's prescribed rates is confiscatory. In this connection we have considered the evidence of present return in industrial enterprises of other character and that of similar utility companies as well as the fact that plaintiff makes no claim and furnishes no evidence that new capital is at present needed in its business."

Peoples Gas Light & Coke Co. v. Hart, is another recent case very much to the point. This case arose out of a

refusal of the Illinois Commerce Commission to permit the Peoples Gas Light and Coke Company at Chicago to increase its rates due to alleged increases in the cost of rendering service. After certain litigation in the lower state courts, including a report by a master and findings of the state circuit court in favor of the company, the case finally came before the Illinois supreme court (the court of last resort in the state of Illinois). This court reversed a decree of the circuit court. In discussing a 5 per cent rate of return, which the lower court held to be confiscatory, the supreme court said (Peoples Gas Light & Coke Co. v. Slattery [1939] 373 Ill 31, 31 PUR (NS) 193, 218, 25 NE(2d) 482) :

"We have been unable to find any precise definition of what constitutes a rate that is confiscatory. It seems to us fair to assume that if the company could take a sum equivalent to the value of its property and invest it soundly, so as to insure a rate of return in excess of the return authorized by the Commission, this would be proof, or at least evidence, of confiscation, yet we are bound to take judicial notice of the fact, as well as evidence in the record, that it would be exceedingly difficult to invest a sum anywhere comparable to the value of appellee's property so as to earn 5 per cent. It appears that in 1936 the yield of the highest grade public utility bonds was between 3 per cent and $3\frac{1}{2}$ per cent, and that between 1934 and 1936, first class public utilities were enabled to borrow upon their bonds money at from $3\frac{1}{2}$ per cent to $4\frac{1}{4}$ per cent, and that the average yield on the best bonds of railroads and industries,

NEW YORK PUBLIC SERVICE COMMISSION

during 1936 and 1937, ranged from 3½ per cent to 4½ per cent. It was also shown that state bonds and high-grade city bonds were sold to yield anywhere from 1¼ per cent to 2½ per cent. It also appears in the record that the company borrowed several million dollars for refunding purposes at 4 per cent. The fair rate of return is to be tested primarily by present-day conditions. United R. & Electric Co. v. West, 280 US 234, 74 L ed 390, PUR1930A 225, 50 S Ct 123. It seems reasonably clear that in view of present economic conditions, of which we take judicial notice (Los Angeles Gas & E. Corp. v. California R. Commission, 289 US 287, 77 L ed 1180, PUR1933C 229, 53 S Ct 637) that the company would have great difficulty in realizing 5 per cent upon the money it has invested in its utility enterprise, in securities which would be as sound and as certain to return a like percentage. In this view it cannot be said that the company has suffered any loss of property that is confiscation. On the other hand, in ascertaining a just and reasonable return upon the investment there are other elements taken into consideration which include not only the earnings of other comparable companies, but also earnings that will enable the company at all times to be reasonably certain to become the purchaser of its stocks and bonds, so as to readily procure money for refunding or extension purposes.

" . . . Since we have no issue before us as to whether the return is just and reasonable, and only have determined whether the appellee established confiscation as alleged in the complaint, there is ample authority to sustain the proposition that under the

present economic conditions a return of 5 per cent cannot be regarded as confiscatory."

Appeal was taken from this decision to the United States Supreme Court which granted the motion to dismiss the appeal "for want of a substantial Federal question" (309 US 634, 84 L ed 991, 60 S Ct 724).

[31-33] What are some of the conclusions to be drawn from the above decisions and others that might be cited?

1. There is no single rate of return that is universally applicable to all utilities, to all localities and to all times.

2. The rate of return should be varied as conditions vary.

3. A fair rate of return is the rate necessary to provide the capital needed to develop and maintain an enterprise which is providently conceived, soundly financed, wisely engineered, efficiently administered and rendering a service for which there is a public demand.

4. A fair rate of return is not independent of all other determinations made in deciding a rate case. It may be affected by the elements it is supposed to include. As indicated in several of the cases cited above, the amounts allowed in operating expenses to cover depreciation are closely related to the rate of return and if adequate provision is not separately made for accruing depreciation, investors would naturally expect that the rate of return would include a sufficient amount to cover not only a return upon their capital but an amount to protect the integrity of their

RE ORANGE & ROCKLAND ELECTRIC CO.

prudent investment through depreciation reserves.

The allowed rate of return of 5½ per cent in this case in view of all attending conditions and other findings is fair, just, and reasonable. It is more than sufficient to barely escape being declared confiscatory.

An order should be adopted prescribing reasonable rates, approximately \$50,000 less annually than those in effect in December, 1941.

Commissioners Brewster and Burritt concurring; Commissioner Van Namee in the negative, filing a memorandum dated February 8, 1943; Commissioner BRAY in the negative making the following statement:

"Since the report fixes 5½ per cent as a just and reasonable rate of return and since this is a change in the rate of return previously generally applied, I believe the company should be notified that the Commission is contemplating the consideration of such a rate of return and the company should be given an opportunity to be heard upon that issue. The case should be reopened for that purpose. It may be argued that the rate of return is always an element in rate making. The record discloses no particular discussion upon this important subject. Without passing upon the merits in any manner and since my motion for reopening the case has been overruled, I vote against the memorandum."

VAN NAMEE, Commissioner, dissenting: With that portion of the memorandum by Chairman Maltbie in this case which criticizes the management and methods of operation of

this company, I am in entire accord, but I disagree with the disposition of several items with the recommendation of a rate of return fixed at 5½ per cent.

I agree that in this case no amount need to be allowed in operating expenses for the preparation of the continuing property record. The last charge for this item was made during 1939. The implication of the discussion on pages 56-57, however, is to the effect that these charges are not proper charges to operating expenses. So long as they are not unreasonable or fraudulent, I believe they are legitimate operating expenses. The company kept its books according to the prescribed system of accounts and until very recently no continuing property record was prescribed. These records must now be prepared and currently maintained and the reasonable cost of their preparation and continuation should be a charge to operating expenses.

No amount is allowed for Regulatory Commission Expenses for 1942 although the last hearing was held on September 29, 1942, and the work of preparing the memorandum was done during that year. The cost of this was assessed to the company. The average Regulatory Commission Expense from 1938 to 1941 inclusive was \$3,380 per annum. There will be expenses in the future before this case is finally decided and I believe that the amount of \$1,500 rather than \$500 suggested by the memorandum (page 57) should be allowed.

I do not believe that the fact that rates are lower or higher as compared to other companies of the same gross

NEW YORK PUBLIC SERVICE COMMISSION

revenue group or that a comparison of the gross revenue of this company with others should be given as much weight in deciding the reasonable salary of the officials as suggested by the testimony of Mr. Bennett as discussed in the memorandum. Many elements must be considered in arriving at a reasonable salary. In this instance, I consider \$15,000 more reasonable than the \$12,000 allowed for the salary of the president of the company.

This Commission has, for more than ten years, with few exceptions, fixed 6 per cent as the rate of return allowed on the fair value of the property used and useful in the public service in rate cases. While this company has been able to refinance its bonds on a 3 per cent interest basis and reduced two-thirds of its preferred stock to a 5 per cent basis, this saving has been more than offset by the increase in Federal income taxes which have risen from \$26,417 in 1938 to an estimated \$60,729 in 1941 (Table 11). The probability is these taxes will increase.

It is known that the cost of living has increased from 15 to 20 per cent during the last five years and I believe some consideration should be given to this fact in determining the fair return to which stockholders of a public utility corporation are entitled. Five and one-half per cent on the rate basis (Table 5) would require \$123,470; 6 per cent on the rate base would require \$134,700. The revised operating income for 1941 "revised for future" (Table 11) is \$151,607. If the adjustments suggested by me: \$1,000 in the matter of Regulatory Commission Expense and \$3,000 in the allowance for the salary of the president, are made, there would be left approximately \$13,000 over a 6 per cent return. Adjusting this amount for taxes by the same method used by Chairman Maltbie would require a reduction of \$23,000 in rates.

I believe the rate of return should be 6 per cent. As I cannot dissent effectively from a part of the memorandum, I am compelled to vote against the memorandum as a whole.

A black and white photograph of a large industrial motor or pump unit. The unit is dark-colored with various mechanical components, including a fan at the top left and piping on the right. A rectangular metal nameplate is attached to the front left side of the unit. The plate has "KUHLMAN ELECTRIC COMPANY" printed vertically along its top edge, and "BAY CITY, MICHIGAN" printed horizontally below it.

KUHLMAN ELECTRIC COMPANY
BAY CITY, MICHIGAN

READY TO TAKE ON

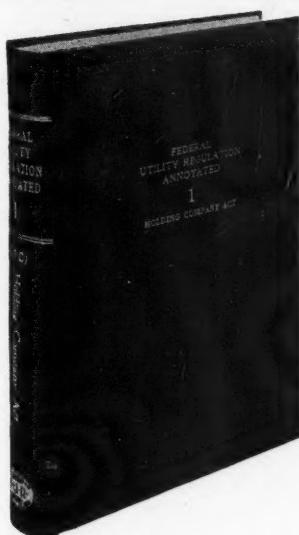
2500 KVA OF AMERICA'S INCREASING POWER DEMAND

IN MARCH, 1941, America's power output totaled 2,983,000,000 Kw-Hr. In March, 1943, it had increased to 3,947,000,000 Kw-Hr. Kuhlmam Transformers have been playing an important role in helping to handle this increasing power demand.

The unit shown here (low voltage side of a 2500 KVA conservator type, single phase, 60 cycle, 6900-7200/12470 Y volts with 4—2½ % taps) is typical of the many efficient transformers built by Kuhlmam. Tap changers are brought out from the side of the tank. Temperature control for blower motors and wiring in conduit boxes. Blowers installed between radiators and structural steel construction throughout. If you are interested in dependable, efficient transformers, it will pay you to get the facts about Kuhlmam's.



FEDERAL UTILITY REGULATION ANNOTATED (FURA)



The Public Utility Holding
Company Act of 1935
as administered by the
Securities and Exchange Commission
1935 to 1941, Inclusive

A Section by Section Treatment
of the Act, with

- (1) Effective SEC Rules
- (2) Annotations of Commission
and Court decisions
- (3) Supplemental notes

OTHER FEATURES: Historical introduction,
personnel of the Commission since organization
(1934-1941), complete alphabetical list of
subsidiaries of holding company systems, rules
of practice, comprehensive subject index, an-
nual pocket supplements. Price, \$12.00; in com-
bination with Public Utilities Reports, \$10.00.

AND TO KEEP YOU UP TO DATE:

FURA - CURRENT SERVICE - SEC

A continuing record issued twice a month, with special issues as required.

- Summaries and analyses of commission and court decisions
- Special studies of financial aspects, policies and practices
- Comments upon observable regulatory trends and tendencies
- References to and excerpts from addresses by members and staff
- Brief reviews of pertinent articles in periodical literature
- Notes on legislative proposals and congressional debates
- Guides to collateral material of interpretative or suggestive value
- All dependable information clarifying or expounding the Commis-
sion's work

Subscription price \$25 a quarter, including convenient binder and
periodical index.

PUBLIC UTILITIES REPORTS, INC.
1038 MUNSEY BUILDING
WASHINGTON, D. C.



Industrial Progress

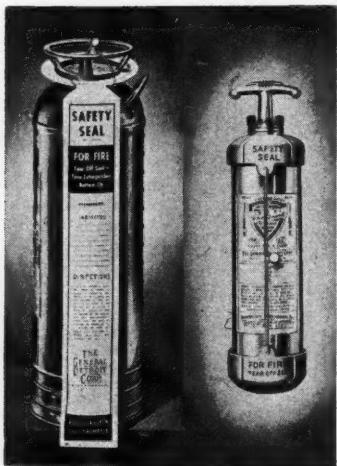
Selected information about products, supplies and services offered by manufacturers. Also announcements of new literature and changes in personnel.

Equipment Notes

Seal Prevents Fire Extinguisher Tampering

A new and low-priced device to provide protection against fire sabotage is now available from The General Detroit Corporation, manufacturers of fire fighting equipment. Known as the General Safety Seal, it is designed to prevent fire extinguisher tampering or clogging and is offered in models to fit all standard types of extinguishers.

Constructed of heavy water-repellent stock, the General Safety Seal has three standard



types of design. Foam and soda acid extinguishers are protected by a stitched envelope which slips snugly over the hose and fastens around the control valve. Vaporizing liquid extinguishers are fitted with two caps, one covering the pump end and the other protecting the nozzle. Carbon dioxide extinguishers are guarded by a cup-type envelope which fastens tightly over the nozzle horn. All protective envelopes or caps are securely held in place

by a tamper-proof wired seal. The envelope cannot be removed or the extinguisher used without breaking the seal. Thus the extinguisher cannot be tampered with or become clogged without warning, and the danger of explosion is reduced.

The Safety Seal is designed to provide full protection yet keep the extinguisher ready for instant use and accessible for regular cleaning. It can be used on extinguishers that must stand on the floor, as in welding departments.

The General Safety Seal is priced at 35¢ in dozen lots. Space is available for imprinting the company name. For further information and volume discount prices contact Mr. F. D. Bacon, The General Detroit Corp., 2272 East Jefferson, Detroit 7, Mich.

New Automatic Device Shows Payroll Tax Deductions in a Flash

The George S. May Company, business engineers, 2600 North Shore Ave., Chicago, Ill., announce the release of a new device, called the "Deduct-O-Graph," which automatically shows the proper payroll tax deduction for any employee when proper settings are made as to marital status, wage range and pay period.

The Deduct-O-Graph, according to the company, will be sent to any firm requesting it on a business letterhead.

Visual Aid Films for Training Electricians Available

A series of twelve reading or discussion type slidefilms entitled "Basic Electricity," have been made available for the training of electricians, electric service and shop men, and electrical goods salesmen, according to an article written by Lyne S. Metcalfe, 51 East 42nd St., New York City.

The films are not designed to make a high school graduate into a competent electrician. They are designed to shorten the period of time needed to finish the course by giving a basic understanding of electrical principles, tools, and equipment.

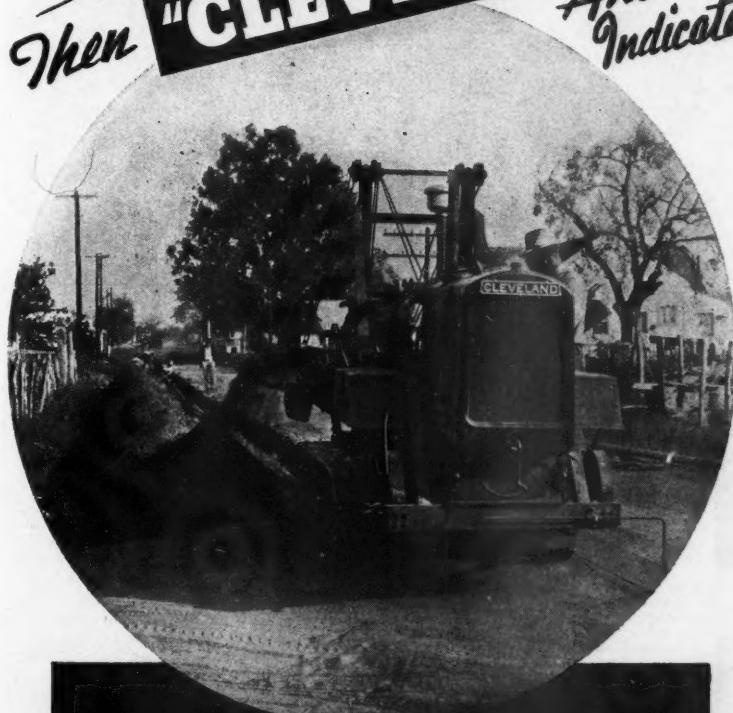
"Each slidefilm is a subject complete in itself," Mr. Metcalfe explains. "Each provides an approved lesson 'pattern' around which the instructor may build his visualized meetings."

The slidefilm, according to Mr. Metcalfe, is a "strip of 35 mm. safety motion picture film, on each frame or segment of which is a picture—with explanatory text, labels, letterings, legends, or notations superimposed on the film. . . . The specific purpose of this form of film is to permit the instructor to read (aloud) . . . to speak without interference . . . to permit the students to talk if desired, supplying illus-

DICKE TOOL COMPANY
DOWNERS GROVE, ILL.
Manufacturers of
Pole Line Construction Tools
They're Built for Hard Work

Mention the FORTNIGHTLY—It identifies your inquiry

*When Speed Is Vital—
Then "CLEVELANDS"
Are Indicated*



For Digging Trench for:
**WATER—OIL—GAS—GASOLINE—COMMUNICATION
and POWER LINES . . . And for SEWER and
BUILDING FOUNDATIONS**

For speed, power and dependability—for mobility and economy—for ability
to meet field requirements, on your ditching job, in all kinds of soil, and
various types of terrain "CLEVELANDS" are TOPS in ditching value.



THE CLEVELAND TRENCHER COMPANY

"Pioneer of the Small Trencher"

20100 ST. CLAIR AVENUE

CLEVELAND, OHIO

"CLEVELANDS" Save More... Because they Do More



This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

Why dig through a PILE of Catalogs?

Find the
Fitting
you need,
quickly—



in the COMPLETE line

If you have a Penn-Union Catalog, you can instantly find practically every good type of conductor fitting. These few can only suggest the variety:



Universal Clamps to take a large range of conductor sizes; with 1, 2, 3, 4 or more bolts.



L-M Elbows, with compression units giving a dependable grip on both conductors. Also Straight Connectors and Tees with same contact units.



Bus Bar Clamps for installation without drilling bus. Single and multiple. Also bus supports—various types.



Clamp Type Straight Connectors and Reducers, Elbows, Tees, Terminals, Stud Connectors, etc.



Jack-Knife connectors for simple and easy disconnection of motor leads, etc. Spring action—self locking.

Vi-Tite Terminals for quick installation and easy taping. Also sleeve type terminals, screw type, shrink fit, etc. etc.



Splicing Sleeves, Figure 8 and Oval, seamless tubing—also split tinned sleeves. High conductivity copper; close dimensions.

Preferred by the largest utilities and electrical manufacturers—because they have found that "Penn-Union" on a fitting is their best guarantee of Dependability. Write for Catalog.

PENN-UNION ELECTRIC CORPORATION
ERIE, PA.
Sold by Leading Jobbers



Mention the FORTNIGHTLY—It identifies your inquiry

SEPT. 30, 1943

Equipment Notes (Cont'd)

trated material in illuminated form for class participation and to encourage discussion."

Subjects included in the series are magnetism, static electricity, current electricity, the electric cell, the storage battery, electromagnetism, the generator, alternating current, electric motors, electric meters, applications (heating and lighting) and applications (solenoids, motor uses, radio, and electro plating).

Improved Dry Chemical Fire Extinguishing Agent

The DuGas Engineering Corporation, Marinette, Wisconsin, announces the development of an improved dry chemical for use in their dry chemical fire extinguishers. This new dry chemical, known as "Plus-Fifty DuGas Dry Chemical," is now available from all DuGas distributors without advance in price and does not require a priority because critical materials are not used for its manufacture.

The improved dry chemical has the same water repellency, noncaking, noncorrosive, and nontoxic properties that have been standard with DuGas dry chemical. It has the same nonconductivity to electricity and thus retains its suitability for use on fires in live electrical equipment. And like the former DuGas dry chemical, the new product is harmless to electrical equipment.

The new DuGas chemical is approved by the Underwriters' Laboratories and the Factory Mutual Laboratories. For further information, write the DuGas Engineering Corporation, Marinette, Wis.

American Optical Film Shows Method Of Adjusting Safety Goggles

A new sound motion picture film titled, "Right on the Nose," which shows in detail the quickest, easiest methods of adjusting non-prescription industrial safety goggles so that workers can wear them in comfort, is announced by the American Optical Company of Southbridge, Mass. First of its kind, the 16 mm. film runs 14 minutes and the film is available for loan without charge. Prints are available for loan or for purchase.

Produced for the optical concern by the Jam Handy picture organization, the film represents an answer to industrial eye accidents caused by workers who discard improperly fitted goggles because they are uncomfortable to wear.

The film graphically demonstrates that properly fitted goggles are light, cool, and comfortable to wear, and points out the relatively simple steps involved in adjusting goggles to

"MASTER*LIGHTS"

- Portable Battery Hand Lights.
- Repair Car Roof Searchlights.
- Hospital Emergency Lights.

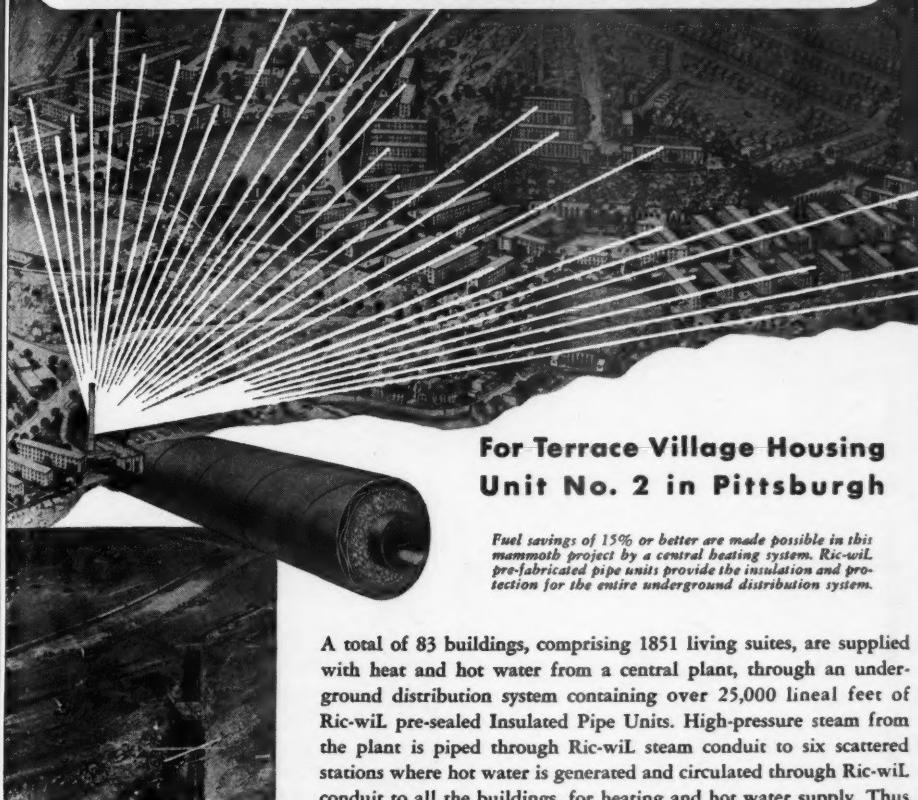
CARPENTER MFG. CO.

197 Sidney St., Cambridge, Mass.
"MASTER*LIGHT*MAKERS"



RIC-WIL

FURNISHED MORE THAN 25,000 FT. OF
PREFABRICATED INSULATED PIPE CONDUIT



For Terrace Village Housing Unit No. 2 in Pittsburgh

Fuel savings of 15% or better are made possible in this mammoth project by a central heating system. Ric-wil pre-fabricated pipe units provide the insulation and protection for the entire underground distribution system.

A total of 83 buildings, comprising 1851 living suites, are supplied with heat and hot water from a central plant, through an underground distribution system containing over 25,000 lineal feet of Ric-wil pre-sealed Insulated Pipe Units. High-pressure steam from the plant is piped through Ric-wil steam conduit to six scattered stations where hot water is generated and circulated through Ric-wil conduit to all the buildings, for heating and hot water supply. Thus the project realizes the economy of steam, and the temperature control and convenience of hot-water heating.

All conduit was factory pre-fabricated and shipped pre-sealed to the site in convenient lengths. Installation was made in record time, with a minimum of excavation and backfill, saving countless man-hours and interfering little or none with other construction. The system is highly efficient, permanent, and maintenance-free—typical of all Ric-wil engineered projects.

Ric-wil Insulated Pipe Units are ideal for hospital, school, industrial or municipal installations of all kinds. Let us show you their advantages on your next construction project.



RIC-WIL

INSULATED PIPE CONDUIT SYSTEMS
THE RIC-WIL COMPANY • CLEVELAND, OHIO

AGENTS IN PRINCIPAL CITIES

Equipment Notes (Cont'd)

faces of different sizes and shapes.

A booklet, "Right on the Nose," has also been published by the American Optical Company. This free booklet is illustrated with scenes from the film and the copy explains the proper methods of adjusting goggles. Copies are available for fitters of goggles.

Catalogs and Bulletins

Expansion Anchoring Devices

A new 20-page catalog presents helpful data for users of all types of expansion anchoring devices. This handy guide is completely illustrated with full installation instructions. It is offered free by the Chicago Expansion Bolt Company, 2240 West Ogden Avenue, Chicago 12, Illinois.

Fire Extinguishing Equipment and Smoke Detecting Systems

The C-O-Two Fire Equipment Company, Newark, N. J., has issued a new booklet describing its line of portable and built-in carbon dioxide fire extinguishing equipment and smoke detecting systems.

The booklet, printed in two colors and illustrated, describes the application and operation of various kinds of C-O-Two equipment such as hand extinguishers with the newly developed

"Squeez-Grip" valve, hose rack, hose reel and wheeled units, manual and automatic built-in extinguishing systems used for industrial, electrical and marine protection. Smoke detecting systems and recharging equipment are also included.

Copies of the booklet are available on request from the company—C-O-Two Fire Equipment Co., U. S. Highway No. 1, Newark, N. J.

Manufacturers' Notes

Copperweld Glassport Division**Awarded Army-Navy E**

On August, 24, 1943, the men and women of the Glassport Division, Copperweld Steel Company, Glassport, Pa., were awarded the Army-Navy "E" for "high achievement in the production of war materiel."

Colonel Will V. Parker, director of the Plant Engineering Agency, U. S. Army Signal Corps, presented the pennant; and Commander W. W. Slocum, U. S. N. R., executive officer for the Inspector of Naval Material, Pittsburgh, Pa., read the citation.

G-E Appointments

Alfred C. Sanger has been appointed sales manager for the appliance divisions of General Electric Company's appliance and merchan-

DAVEY TREE TRIMMING SERVICE

1846

1923

JOHN DAVEY
Founder of Tree Surgery

Remove Tree Hazards

What has summer done to the trees along your lines? Are heavy overhanging limbs, decaying branches, storm-shattered trunks menacing your wires. Perhaps it's time for Davey men to work for you.

Tree interference may aid the Axis

DAVEY TREE EXPERT CO.

KENT, OHIO

DAVEY TREE SERVICE

SEPT. 30, 1943

Mention the FORTNIGHTLY—It identifies your inquiry

Maximum H₂S removal per lb. of Oxide!

* Lavino Activated Oxide is made specifically for maximum sulphur removal...is not just a "satisfactory" purifying medium merely by virtue of incidental properties, but is made especially for maximum capacity and activity, maximum trace removal and shock resistance. As such, we do not believe you will find Lavino Activated Oxide has any close rival—comparing cost, comparing performance and comparing savings.

We'll be glad to tell you all about its remarkable record; just write a note on your letterhead to

E. J. Lavino and Company



1528 Walnut St.

Philadelphia
Penn.

VARNISHED CAMBRIC • RUBBER POWER CABLES • BUILDING WIRE • RADIO WIRES • SIGNAL CABLE • FLEXIBLE CORDS • LEAD-ENCASED AND PARKWAY CABLES • ARMORED CABLE

BARE WIRE • MAGNET WIRE • SERVICE ENTRANCE CABLE • CRESFLEX NON-METALLIC SHEATHED CABLE

**The Mark That
Stands For**

QUALITY

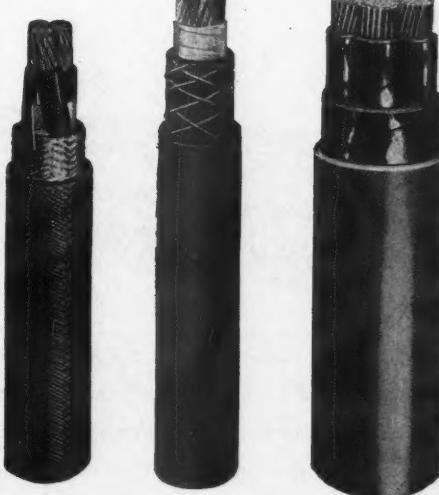
in

Electrical Wires and Cables

*At home or abroad the
emblem that identifies*

CRESCENT WIRE AND CABLE

stands for more than half a century of experience, as well as painstaking care in production.



CRESCENT INSULATED WIRE & CABLE CO.

CRESCENT WIRE and CABLE

Factory: TRENTON, N. J. — Stocks in Principal Cities

CRESCENT ENDURITE SUPER-AGING INSULATION • WEATHER-PROOF WIRE

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

Manufacturers' Notes (Cont'd)

dise department, it is announced by Hardage L. Andrews, vice president in charge of the department.

In peacetime the appliance divisions include refrigerators, ranges, water heaters, electric sinks and kitchen cabinets, home laundry equipment, heating devices, clocks, fans, sunlamps and electric blankets.

Sales activities of the traffic appliance divisions, one of the responsibilities held by Mr. Sanger prior to his new assignment, will now be in charge of Marshall B. Ross, according to a simultaneous announcement by Vice President Andrews.

W. F. Rauber has been appointed manager of sales of General Electric's Outdoor and Station Equipment Section, according to an announcement by R. F. Tinnerholm, manager of the company's Switchgear Division.

Mr. Rauber has been associated with General Electric since 1923 when he entered the company's "test" course following his graduation from Notre Dame University with an E.E. degree. He has been active in the company's switchgear business since 1924.

Formation of an Oakland (Calif.) Works Section of General Electric's Wire and Cable Division, and the appointment of B. F. Ilsley as assistant manager of sales with responsibility over commercial operations there, has been announced by W. V. O'Brien, manager of the division. At the same time it was announced that J. S. Overstreet was appointed assistant manager of sales for the cable section at Schenectady, and J. J. Curtin assistant manager of sales for the magnet wire section at Fort Wayne. The changes became effective September 1st.

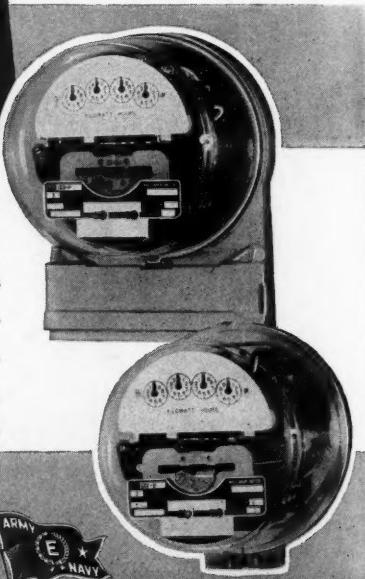
**Two Goodrich Plants
Awarded Army-Navy E**

Two B. F. Goodrich Company plants in Niagara Falls, New York, and Louisville, Kentucky, have received notification of star awards for Army-Navy "E" citations conferred upon employees early this year. The two manufacturing units are the first of seven B. F. Goodrich plants to add renewal stars to their "E" award flags.

Other B. F. Goodrich plants winning "E" awards are in Akron, Watertown, Mass., Texarkana, Texas, Clarksville, Tenn., and Los Angeles, Calif.

THE Future OF
MODERN METERING

THE cooperation of the electric utility industry with the watt-hour meter manufacturers has kept the design and development of the modern watt-hour meter well ahead of metering requirements. Thanks to this cooperative spirit, watt-hour meters will again play their important part in system modernization when normal times are once more restored.



SANGAMO ELECTRIC COMPANY

SPRINGFIELD - ILLINOIS

SEPT. 30, 1943

Mention the FORTNIGHTLY—It identifies your inquiry



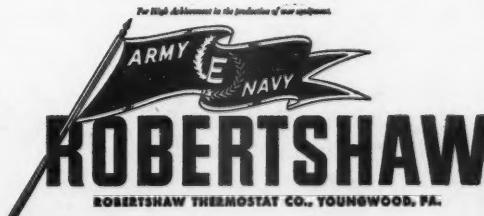
"Baste Frequently!" We here at Robertshaw are giving that well-known cooking term a wartime meaning. To us, "Baste Frequently" means Baste the Axis—early and often.

"Baste Frequently"

And that's just what we're helping to do. From our years of experience in making precision devices such as thermostats, we've turned to the production of precision instruments for aircraft-devices our fliers are using this very minute to "Baste the Axis." And to help our boys "Baste Frequently," we're also producing fuses for hand grenades, primers and ignition cartridges for rockets, as well as boosters and shells for aircraft and anti-aircraft guns.

And with it all, you'll still find a few Robertshaw Thermostats coming off our production lines. They're only for Government projects though — thus keeping our hand in practice for peacetime requirements when that grand day arrives.

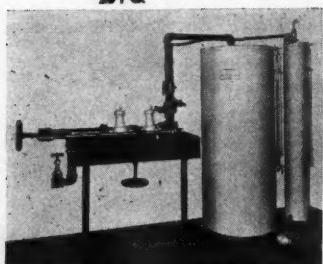
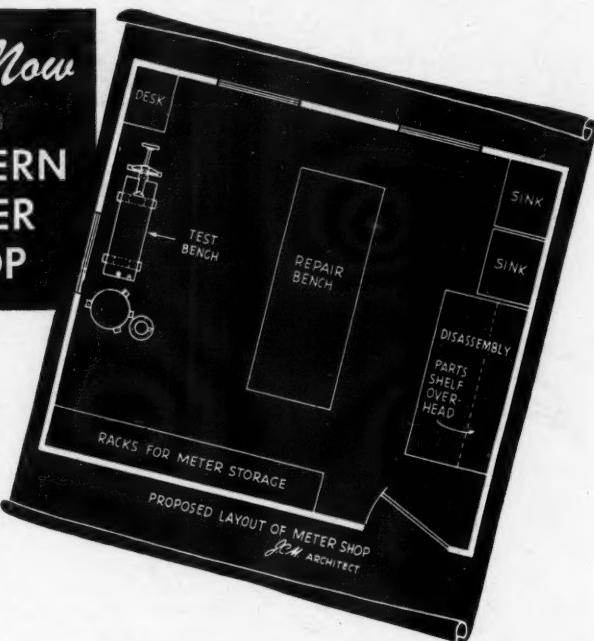
For High Achievement in the Production of War Equipment.



A GOOD meter repair man will do better work when he has good tools and a well planned place in which to work.

That is why your post-war planning should include your meter shop. It is not too early to look into the modernization of testing equipment. The layout of the shop is also important. The proper arrangement of the necessary work benches, parts, bins, testing bench, etc. will enable the meter man to do a better job. An efficient meter shop need not be elaborate nor expensive . . . but remember that it is the heart of the metering end of your water system; and it will pay you to plan it carefully.

Plan Now
for a
**MODERN
METER
SHOP**



- Neptune representatives have first-hand knowledge of methods used in water departments of all sizes and will be glad to help with your plans.

65

NEPTUNE METER COMPANY • 50 West 50th Street • New York 20, N. Y.
Branch Offices in CHICAGO, SAN FRANCISCO, LOS ANGELES, PORTLAND, ORE.,
DENVER, DALLAS, KANSAS CITY, LOUISVILLE-ATLANTA, BOSTON.
Neptune Meters, Ltd., Long Branch, Ont., Canada



**Save to Win
with these four simple rules
of battery care:**

- 1 Keep adding approved water at regular intervals. Most local water is safe. Ask us if yours is safe.
- 2 Keep the top of the battery and battery container clean and dry at all times. This will assure maximum protection of the inner parts.
- 3 Keep the battery fully charged—but avoid excessive over-charge. A storage battery will last longer when charged at its proper voltage.
- 4 Record water additions, voltage, and gravity readings. Don't trust your memory. Write down a complete record of your battery's life history. Compare readings.

If you wish more detailed information, or have a special battery maintenance problem, don't hesitate to write to Exide. We want you to get the long-life built into every Exide Battery. Ask for booklet Form 3225.

Exide
CHLORIDE
BATTERIES

**... is a vital principle
of utility operation!**

Conservation of materials is no new story to the men who operate public utilities. With thrift and efficiency they have always planned for conservation.

They've squeezed the last ounce of use out of materials and equipment in their care . . . and today, that need is intensified.

One helpful principle to follow is that of "Buy to Last—Save to Win." Buy quality products and equipment, then care for it to avoid needless replacement. That conserves raw materials, labor, and space in factories. It frees these productive elements for essential war production.

THE ELECTRIC STORAGE BATTERY CO.
Philadelphia
Exide Batteries of Canada, Limited, Toronto

PROFESSIONAL DIRECTORY

• This Directory is reserved for engineers, accountants, rate experts, consultants, and others equipped to serve utilities in all matters relating to rate questions, appraisals, valuations, special reports, investigations, design, and construction. < < <

THE AMERICAN APPRAISAL COMPANY

INVESTIGATIONS, APPRAISALS AND STUDIES

for

ACCOUNTING AND REGULATORY REQUIREMENTS

NEW YORK WASHINGTON CHICAGO MILWAUKEE SAN FRANCISCO
and other principal cities

DAY & ZIMMERMANN, INC.

ENGINEERS

NEW YORK

PHILADELPHIA

CHICAGO

PACKARD BUILDING

DESIGN
CONSTRUCTION
OPERATING COSTS

Ford, Bacon & Davis, Inc.

Engineers

**RATE CASES
APPRASIALS
INTANGIBLES**

NEW YORK

PHILADELPHIA

WASHINGTON

CHICAGO

VALUATIONS AND REPORTS

GANNETT, EASTMAN & FLEMING, INC.

ENGINEERS

Harrisburg

Pennsylvania

GILBERT ASSOCIATES, Inc.

ENGINEERS

Steam, Electric, Gas, Hydro,
Designs and Construction,
Operating Betterments,
Inspections and Surveys,
Feed Water Treatment.

POWER ENGINEERING SINCE 1906

Serving Utilities and Industrials

Reading, Pa.
Washington New York

SPECIALISTS

Purchasing and Expediting,
Rates, Research, Reports,
Personnel Relations,
Original Cost Accounting,
Accident Prevention.

J. H. MANNING & COMPANY

120 Broadway, New York

ENGINEERS

Business Studies

Purchase-Sales

Valuations

New Projects

Management

Reorganizations

Consulting Engineering

Mergers

Public Utility Affairs including Integration

Mention the FORTNIGHTLY—It identifies your inquiry

PROFESSIONAL DIRECTORY (continued)

SANDERSON & PORTER

ENGINEERS AND CONSTRUCTORS

Design and Construction of Industrials
and Public Utilities.

Reports and Appraisals in Connection
With Management Problems, Financing, Reorganization.

Chicago

New York

San Francisco

Sargent & Lundy

ENGINEERS

Steam and Electric Plants

Utilities—Industrials

Studies—Reports—Design—Supervision

Chicago

STONE & WEBSTER ENGINEERING CORPORATION

DESIGN AND CONSTRUCTION

REPORTS • CONSULTING ENGINEERING • APPRAISALS

BOSTON • NEW YORK • CHICAGO • HOUSTON • PITTSBURGH
SAN FRANCISCO • LOS ANGELES

THE J. G. WHITE ENGINEERING CORPORATION

DESIGN • CONSTRUCTION • REPORTS • APPRAISALS

80 BROAD STREET, NEW YORK

Albright & Friel Inc.

Consulting Engineers

Investigations, Valuations, and Reports
Design and Supervision of Construction

1520 Locust Street Phila., Penna.

BLACK & VEATCH

CONSULTING ENGINEERS

Appraisals, investigations and re-
ports, design and supervision of con-
struction of Public Utility Properties

4706 BROADWAY

KANSAS CITY, MO.

BARKER & WHEELER, ENGINEERS

DESIGNS AND CONSTRUCTION — OPERATING
EFFECTMENTS — COMPLETE OFFICE SYSTEMS —
MANAGEMENT — APPRAISALS — RATES

11 PARK PLACE, NEW YORK CITY
36 STATE STREET, ALBANY, N. Y.

EARL L. CARTER

Consulting Engineer

REGISTERED IN INDIANA, NEW YORK, OHIO,
PENNSYLVANIA, WEST VIRGINIA, KENTUCKY

*Public Utility Valuations, Reports and
Original Cost Studies.*

910 Electric Building Indianapolis, Ind.

(Professional Directory Concluded on Next Page)

PROFESSIONAL DIRECTORY (concluded)

JACKSON & MORELAND
ENGINEERS

PUBLIC UTILITIES—INDUSTRIALS
RAILROAD ELECTRIFICATION
DESIGN AND SUPERVISION VALUATIONS
ECONOMIC AND OPERATING REPORTS

BOSTON

NEW YORK

MARK WOLFF

Public Utility Consultant
261 BROADWAY, NEW YORK, N. Y.
Representing the Public Exclusively
Since 1914.

JENSEN, BOWEN & FARRELL

Engineers

Ann Arbor, Michigan

Appraisals - Investigations - Reports
in connection with
rate inquiries, depreciation, fixed capital
reclassification, original cost, security issues.

J. W. WOPAT

Consulting Engineer

Construction Supervision
Appraisals—Financial
Rate Investigations

1510 Lincoln Bank Tower Fort Wayne, Indiana

A. S. SCHULMAN ELECTRIC CO.

Contractors

TRANSMISSION LINES—UNDERGROUND DISTRIBUTION — POWER STATION — INDUSTRIAL — COMMERCIAL INSTALLATIONS

537 SOUTH DEARBORN ST. CHICAGO

Representation in this Professional Directory may be obtained at very reasonable rates. Kindly address inquiries to:

ADVERTISING DEPARTMENT
Public Utilities Fortnightly
1038 Munsey Building
Washington 4, D. C.

At your Service!



• Whatever the demands of the gas industry may be, Connelly is equipped to meet them. With our new laboratory for scientific testing of purification materials and greatly increased facilities for the production of Iron Sponge, Governors, Regulators, Back Pressure Valves and other equipment for gas purification and control, Connelly is at your service, ready for any emergency.

Under the able management of Mr. A. L. Smyly, pioneer in gas purification and pressure regulation, this organization has continued its leadership in the field, and the fact that Connelly products are standard in hundreds of the leading gas plants of the country is indicative of the service rendered.

• Mr. A. L. Smyly
President
Connelly Iron
Sponge &
Governor Co.

Connelly

IRON SPONGE and GOVERNOR Company
CHICAGO, ILL.

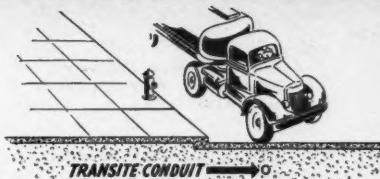
ELIZABETH, N. J.



Mention the FORTNIGHTLY—It identifies your inquiry

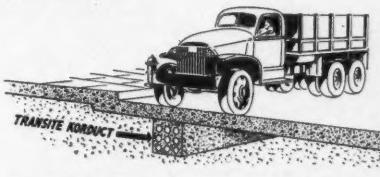
WHY TWO TYPES OF TRANSITE DUCTS?

For Use
Without a
Protective
envelope . . .



Transite Conduit saves on labor and material, for it is so strong it needs no protective casing. It maintains its strength and true form under heavy earth loads and traffic pressure. Can't rot . . . effectively resists soil corrosion, smoke and fumes.

For Use
With a
protective
casing . . .



Transite Korduct is thinner walled, lower priced, otherwise identical with Transite Conduit. Its long lengths mean fewer joints, fewer spacers. And its unusually high rate of heat dissipation lowers cable operating temperatures, boosts system capacity.



BOTH THESE DUCTS PROVIDE THESE ADVANTAGES AS WELL . . .

1. Minimize fire hazard—Transite Ducts cannot burn because they are made of asbestos and cement. They will not contribute to the formation of explosive or combustible gases.

2. Eliminate electrolysis problem—Inorganic and non-metallic, Transite Ducts can never be affected by electrolytic action.

3. Make cable pulls easy—The smooth bore of Transite Ducts speeds up cable installation. Because the ducts stay smooth in service, cables can be removed and re-

placed at any time with virtually no damage to sheathing.

4. Save time on installation—Light in weight, supplied in long lengths, Transite Ducts are so easy to assemble that only the minimum of time and expense is required for any job. Write for Data Book DS-410, Johns-Manville, 22 E. 40th St., New York, N. Y.

JM Johns-Manville

TRANSITE DUCTS

TRANSITE KORDUCT—

for installation in concrete

TRANSITE CONDUIT—

for exposed work and installation underground without a concrete encasement

INDEX TO ADVERTISERS

[The *Fortnightly* lists below the advertisers in this issue for ready reference. Their products and services cover a wide range of utility needs.]

A

*Addressograph-Multigraph Corp.	.....	45
Albright & Friel Inc., Engineers	.....	45
*Aluminum Co. of America	.....	45
American Appraisal Company, The	.....	44
*Autocar Company	.....

B

*Babcock & Wilcox Co., The	.....	3
Barber Gas Burner Company, The	.....
Barker & Wheeler, Engineers	.....	45
Black & Veatch, Consulting Engineers	.....	45
*Blaw-Knox Division of Blaw-Knox Co.	.....
*Brown, L. L., Paper Co.	.....
Burroughs Adding Machine Co.	.....	13

C

Carpenter Manufacturing Company	.....	36
Carter, Earl L., Consulting Engineer	.....	45
Cleveland Trencher Co., The	.....	35
Combustion Engineering Company, Inc.	.....	16-17
Connelly Iron Sponge & Governor Co.	.....	46
Crescent Insulated Wire & Cable Co., Inc.	.....	39

D

Davey Compressor Company	.....	18
Davey Tree Expert Company	.....	38
Day & Zimmermann, Inc., Engineers	.....	44
Dicke Tool Company	.....	34

E

Egry Register Company, The	.....	Inside Back Cover
Electric Storage Battery Company, The	.....	43
Elliott Company	.....	32

F

Ford, Bacon & Davis, Inc., Engineers	44
--------------------------------------	-------	----

G

Gannett, Eastman & Fleming, Inc., Engineers	.....	44
*General Detroit Corporation	.....
General Electric Company	.....	28
*General Motors Truck & Coach	.....
Gilbert Associates, Inc., Engineers	.....	44
Grinnell Company, Inc.	.....	23

H

Hoosier Engineering Company	.....	22
*Horn, A. C., Company	.....

I

International Harvester Company, Inc.	.....	25
I-T-E Circuit Breaker Co.	.....	Inside Front Cover
Professional Directory	.....

* Fortnightly advertisers not in this issue.

J

Jackson & Moreland, Engineers	.....	46
Jensen, Bowen & Farrell, Engineers	.....	46
Johns-Manville	.....	47

K

Kerite Insulated Wire & Cable Co., Inc., The	.....	29
Kinnear Manufacturing Company, The	.....	21
Kuhlman Electric Company	.....	Insert at page 33

L

Lavino, E. J., and Company	38
----------------------------	-------	----

M

Manning, J. H., & Company, Engineers	.....	44
*Marmon-Herrington Co., Inc.	.....
Merco-Nordstrom Valve Company	.....	19, Outside Back Cover
Mercoid Corporation, The	.....	24

N

*National Production Company	.....
Neptune Meter Company	.....	42
Newport News Shipbuilding & Dry Dock Co.	.....	30

P

*Pennsylvania Transformer Company	.....
Penn-Union Electric Corporation	.....	36
Pittsburgh Equitable Meter Company	.....	19, Outside Back Cover
Robins Conveyors Incorporated	.....	26-27

R

Railway & Industrial Engineering Company	.....	15
Recording & Statistical Corp.	.....	20
Remington Rand Inc.	.....	5
Ric-wil Company, The	.....	37
Ridge Tool Company, The	.....
Riley Steker Corporation	.....
Roberts Shaw Thermostat Co.	.....	41
Robins Conveyors Incorporated	.....	26-27

S

Sanderson & Porter, Engineers	.....	4
Sangamo Electric Company	.....	4
Sargent & Lundy, Engineers	.....	4
Schulman, A. S., Electric Co., Contractors	.....	4
Stone & Webster Engineering Corporation	.....	4

T

Todd Combustion Division	31
--------------------------	-------	----

V

Vulcan Soot Blower Corp.	11
--------------------------	-------	----

W

White, J. G., Engineering Corporation, The	.....	4
Wolff, Mark, Public Utility Consultant	.....	4
Wopat, J. W., Consulting Engineer	.....	4

44-46

GR

1943

46
46
47

29
21
age 33

36

44

9, Out-
k Cover
24

42
0... 30

36
9, Out-
k Cover

y ... 15
20
35

4
26-2

4
4
4
4
4

7
32
EG

11

4
4
4

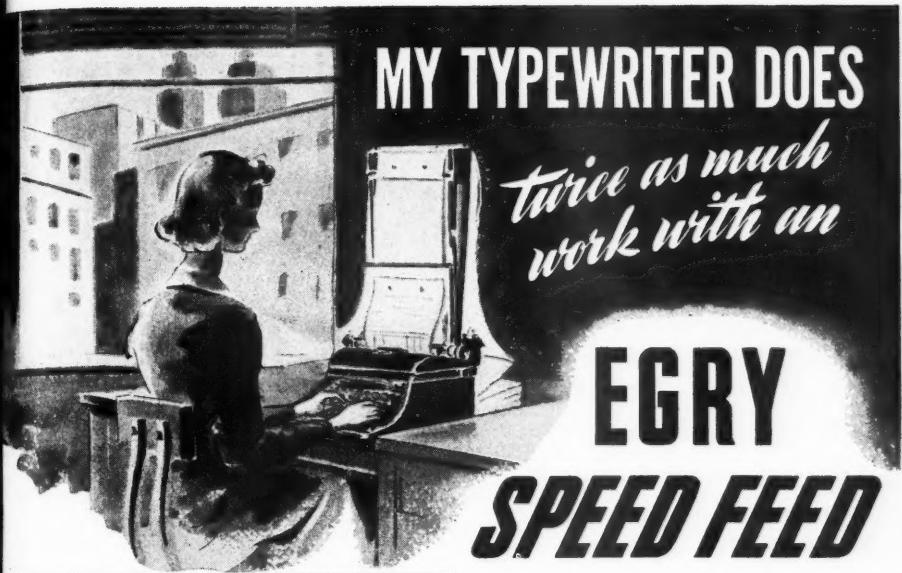
GR

EG
EG
sta
wit
out
EG
all
tro
EG
for
In
tin
dia
EG
pu
eli
wi
Al
yo

TH

EGR

ECRY



MY TYPEWRITER DOES

*twice as much
work with an*

EGRY SPEED FEED

EGRY BUSINESS SYSTEMS COMPRIZE:

EGRY SPEED-FEED. May be attached to any standard make typewriter in one minute, and with Egyr Continuous Forms, doubles operator output. One machine does the work of two.

EGRY TRU-PAK Register speeds the writing of all handwritten records. Assures complete control over every business transaction.

EGRY ALLSET Forms, the modern single set forms for speed writing all business records. Individually bound sets, interleaved with one-time carbons. ALLSETS are ready for immediate use for typed or handwritten forms.

EGRY CONTINUOUS Forms increase the output of operators by 50% and more because they eliminate time-consuming operations. Furnished with or without interleaved one-time carbons.

AND in addition to the above, there are others you'll want to know more about.

The shortage of typewriters and competent operators will be compensated for if you use Egyr Business Systems. In thousands of instances Egyr Speed-Feeds and Egyr Continuous Forms enable operators to produce twice as much work as they did before with the typewriter alone and ordinary loose forms and carbons.

Other Egyr Business Systems for handwritten records are equally important. Investigate today. You'll be surprised at the amount of time you will save when you use Egyr Business Systems. More detailed information will be sent on request, or free demonstrations may be arranged at your convenience. There's no cost or obligation, of course. Address Department F-930.

Sales agencies in principal cities.

THE EGRY REGISTER COMPANY • Dayton, Ohio

Egyr Continuous Forms Limited, King and Dufferin Sts., Toronto, Ontario, Canada.

EGRY TRU-PAK



EGRY ALLSET FORMS



"Do It in Writing"

EGRY SPEED-FEED

This page is reserved under the MSA PLAN (Manufacturers Service Agreement)

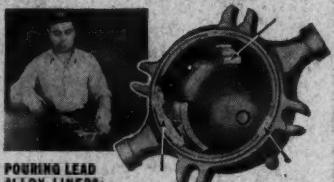
Details Make Perfection

TRIPLE PROTECTION FOR CAST IRON CASE



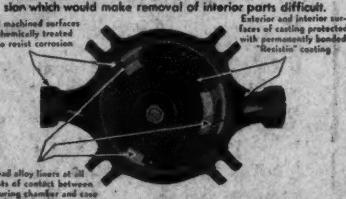
THE FINEST GREY IRON CASTINGS:

It takes fine cloth to make a fine gown, and only top grade iron castings are used for the Victory. Note the recesses cast in the interior walls to hold the babbittings that forms the protective liners between outer case and measuring chamber.



POURING LEAD ALLOY LINERS:

View shows the interior of the Victory case after the lead alloy liners have been poured but before machining. This lining (patent applied for) provides a perfect jointing surface to prevent corrosion which would make removal of interior parts difficult.



COMPLETE 3-WAY PROTECTION: The three-way method of covering the cast iron surfaces of the Victory, detailed above, provides a fully rust-proof design; one that is treated, coated and laboratory tested to assure protection both for the duration and for years to come.

in

THE Empire VICTORY Meter

PERFECTION is only an ensemble of detail. In the Empire Victory, the care and attention that have been devoted to even the most minute details put this meter head and shoulders above the rank and file of other so-called war model meters.

The protection afforded the cast iron case against rust and corrosion is an outstanding example of design perfection. Not content with providing a mere "duration" stop-gap for bronze cases, Pittsburgh-National technicians perfected a three-way method of sealing the casing and machined surfaces to assure a permanency obtainable in no other make.

The "crown" of the Victory Meter is the all-glass register box—another development of Pittsburgh-National research.

On the operating side, this meter has the time proven Empire oscillating piston design, unequalled for accuracy and long life. Here, too, such details as a snap joint, measuring chamber and the use of only three interior bronze castings that are assembled without screws, provide simplicity and compactness with an accessibility and ease of maintenance that are appreciated in the meter shop.



THE Empire VICTORY METER

A Fully Protected Iron Case Water Meter with Clear Vision All-Glass Register Box.

INVEST TODAY IN BONDS FOR VICTORY

PITTSBURGH EQUITABLE METER COMPANY

MERCO NORDSTROM VALVE COMPANY

Main Offices, Pittsburgh, Pa.

BOSTON BROOKLYN COLUMBIA
BUFFALO HOUSTON KANSAS CITY

PITTSBURGH SAN FRANCISCO
MEMPHIS NEW YORK SEATTLE
TULSA

Water Meters

